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PERSONAL.

Mr. Lawrence F. Lewis, city commissioner in charge of the streets and sewers of Baltimore, Md., has resigned from the position.

Mr. J. H. Dockweiler, City Engineer of Los Angeles, Cal., has been renominated for that office by the city Democratic convention.

Mr. C. P. Gilbert, general manager of the Sacramento Electric, Gas & Ry. Co., has been forced to resign owing to continued ill health.

Mr. H. H. Rosseau, Civil Engineer, U. S. N., has been ordered to the New York Navy Yard, as an assistant to the civil engineer of that yard.

Mr. Albert S. Crane, of New York city, has entered the civil engineering corps of the Michigan Lake Superior Power Co., Sault Ste. Marie, Mich.

Mr. William J. Richards has been promoted to the position of General Superintendent of the Lehigh & Wilkes-Barre Coal Co., Wilkes-Barre, Pa.

Mr. Samuel Insull, President of the Chicago Edison Co., gave a complimentary dinner, on Oct. 15, to the employees of that company who volunteered in the war.

Capt. Mason M. Patrick, Corps of Engineers, U. S. A., has been assigned to duty as temporary secretary and disbursing officer of the Mississippi River Commission.

Lieut.-Colonel William R. Livermore, Corps of Engineers, U. S. A., will act as Chief Engineer Officer of the Army of Occupation of Cuba, on the staff of Gen. Lee.

Mr. E. D. Jameson has been appointed assistant master mechanic of the Grand Trunk Ry., in charge of the Western division. His office will be at Battle Creek, Mich.

Mr. Charles F. Huber, formerly engineer in charge of the Honeybrook Division of the Lehigh & Wilkes-Barre Coal Co., now occupies the position of mining engineer of the company.

Mr. S. Oi, electrical engineer for the Japanese Government, having in charge the Department of Communication of Tokio, is in this country, studying American telephone and telegraph systems.

Mr. H. L. Noyes, civil engineer, 846 Ellicott Square, Buffalo, N. Y., has accepted the position of mechanical engineer of the Union Carbide Co., Niagara Falls, N. Y., and has removed to the latter city.

Mr. Fred. H. Burdick, of Pittsburg, Pa., and Miss Katherine C. Mueller, of Saginaw, Mich., were married at the home of the bride's parents, on Oct. 19. Mr. Burdick is connected with the firm of Riter & Conley.

Mr. I. W. von Leer, civil and hydraulic engineer, 1201 Stephen Girard Bldg., Philadelphia, Pa., sailed for Cuba on Oct. 29. Mr. von Leer will be connected with engineering work to be undertaken by the U. S. Government.

Mr. Frank B. Ward, Secretary and General Manager of the Michigan Brass & Iron Works, Detroit, Mich., resigned his position on Oct. 1. Mr. Ward was at one time the resident engineer of the Pittsburg Testing Laboratory, with headquarters in Chicago. On Oct. 22, the employees of the Michigan Brass & Iron Works gave Mr. Ward a farewell dinner, at which they presented him with a silver punch bowl and ladle.

Mr. Charles A. Schott, Chief of the Computation Division of the Coast and Geodetic Survey, has been awarded the "Wilde" prize by the Academy of France. This prize is awarded by a committee consisting of some of the best-known scientists in France for remarkable discoveries or writings in the field of astronomy, chemistry, geology, physics or mechanics. It was awarded to Mr. Schott for his discussion of terrestrial magnetism.

Lieut.-Colonel Robert Craig, Signal Corps, U. S. A., has been ordered to proceed to Santiago and thence to Guantanamo, Baracoa and Sagua de Janamo, Cuba, to examine and report upon the extent and condition of the telegraph lines in the Department of Santiago, the availability of timber supplies in the country for their construction and other essential points connected with the reconstruction of such lines as are necessary for military purposes.

Mr. D. S. Hough, M. Am. Soc. C. E., who enlisted in the First Volunteer Engineers, U. S. A., has been promoted to be Captain. In a personal letter from Ponce, Porto Rico, dated Oct. 5, to Mr. John Thomson, President of the Engineers' Club, Mr. Hough writes that a large number of promoters already have agents in Porto Rico looking for opportunities for investments. While many wild-cat schemes will probably cause loss to those who invest in them, he believes that capital invested on a large scale and carefully looked after should yield good returns in sugar, coffee and tobacco plantations and in electric railways. Mr. Merritt H. Smith, Jun. Am. Soc. C. E., with the same regiment, in another letter to Mr. Thomson, from which we are permitted to quote, writes that a syndicate has purchased a street railway in San Juan and is securing right of way for an extension to Ponce.

OBITUARY.

Mr. W. H. Brodhead, civil and mining engineer, died at Hailey, Idaho, on Oct. 21.

Mr. E. C. Palmer, secretary and general manager of the Standard Tool Co., Cleveland, O., died on Oct. 13.

Mr. John Hare, for many years assistant superintendent of the Troy, N. Y., Water-Works, died on Oct. 22.

Mr. William J. Brodrick, Vice-President of the Los Angeles City Water Co., died at his home, on Oct. 18.

Mr. Charles Meredith Du Puy, formerly a railway operator and civil engineer, died on Oct. 7, at his home in New York city.

Mr. James Carmichael, superintendent of the machinery department of the Harlan & Hollingsworth Co., Wilmington, Del., died recently.

Mr. Thomas S. Blair, of Pittsburg, Pa., formerly of the firm of Shoenberger, Blair & Co., iron manufacturers, died in Pittsburg, on Oct. 22, at the age of 73.

Mr. Arthur R. Sweet, for many years City Engineer of Pawtucket, R. I., and later of Woonsocket, R. I., died at the former place, on Oct. 23, at the age of 47.

Mr. Clarence G. Davenport, for several years an electrical expert of the General Electric Co., died of typhoid fever in Puerto Rico during the past week. Mr. Davenport was a corporal in the First Volunteer Engineer Regiment, now in Puerto Rico.

Mr. Andrew D. Smith, President of the La Belle Steel Co., Manchester, Pa., died at his home in Allegheny, Pa., on Oct. 21. Mr. Smith was a prominent business man, and besides being President of the La Belle Co., was a director in several banking institutions.

Mr. Thos. R. Hewson, of the firm of Tyrrell & Hewson, civil engineers and surveyors, of Sudbury, Ont., died on Oct. 22. Just previous to his death Mr. Hewson was in the employ of the Dominion Government surveying townships in the Nipissing district, where he contracted typhoid fever, which disease caused his death.

M. Camille A. Faure, whose name is well known in connection with the improvement of the storage battery, died on Sept. 14. M. Faure was born in Vizille, France, May 21, 1840. He was largely self-taught, and early evinced a taste for physics and mechanics and his early work as mechanical draftsman and constructing engineer in France and England, gave him a wide experience. In 1878 he discovered the value of employing spongy metallic lead for the negative plates of storage batteries, and it was this and his later discoveries in the same field that brought him into prominence. He was also the inventor of a number of chemical processes, and during the latter part of his life devoted his energies to improving gas engines and to developing apparatus for the propulsion of wagons and carriages.

Capt. Henry E. Waterman, Corps of Engineers, U. S. A., died on Oct. 26. Captain Waterman was born in Minnesota, from which State he was appointed to West Point, July 1, 1878. Upon graduation he was appointed to the Engineer Corps, and was for three years assistant to Lieut.-Colonel Barlow. He then served on various boards in connection with river improvement work in the Ohio valley, and later as assistant to Major Chas. E. L. B. Davis, engaged on river and harbor improvement work on Lake Michigan. He was a member of the Board of Engineers appointed to establish harbor lines at Pittsburg, Pa., was in charge of portions of the work of Ohio River improvement, and assisted Major Lockwood in the improvement of the Kentucky River. His final office and the one held at the time of his death was secretary and disbursing officer to the Mississippi River Commission.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

BROOKLYN ENGINEERS' CLUB.
Nov. 3. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
Nov. 4. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.
BROOKLYN INSTITUTE OF ARTS AND SCIENCES.
Nov. 4. Illustrated Lecture, T. C. Martin. Secy., Henry L. Weed. Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.
CHICAGO ELECTRICAL ASSOCIATION.
Nov. 4. "The Electrical Equipment of a Model Printing Establishment," Geo. A. Damon. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.
THE ENGINEERS' CLUB OF PHILADELPHIA.
Nov. 5. "Notes on Recent Progress in Electrical Engineering," Carl Hering; "Coal Handling Machinery," Charles Piez. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.
ENGINEERS' CLUB OF COLUMBUS.
Nov. 5. Secy., H. M. Gates, 12½ North High St., Columbus, O.
ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Nov. 7. Secy., H. J. March, Library Bldg., Buffalo, N. Y.
CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Nov. 7. Secy., C. L. Annan, City Engineer's Office, St. Paul, Minn.
NEW ENGLAND RAILROAD CLUB.
Nov. 8. Secy., Edw. L. Janes, P. O. Box 1158, Boston, Mass.
DENVER SOCIETY OF CIVIL ENGINEERS.
Nov. 8. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Col.
CIVIL ENGINEERS' CLUB OF CLEVELAND.
Nov. 8. Secy., Wm. H. Searles, Case Library Building, Cleveland, O.
RAILWAY SIGNALING CLUB.
Nov. 8. Secy., Earl M. Seitz, Signal Engineer, C. & N. W. Ry., Chicago, Ill.
FRANKLIN INSTITUTE.
Nov. 9. "Mining and Minting of Gold and Silver," A. E. Outerbridge, Jr. Secy., Wm. Wahl, 15 South Seventh St., Philadelphia, Pa.
CANADIAN SOCIETY OF CIVIL ENGINEERS.
Nov. 10. Secy., C. A. McNab, 112 Mansfield St., Montreal, Canada.
ENGINEERING ASSOCIATION OF THE SOUTH.
Nov. 10. Secy., C. B. Wilson, 1000 Broad St., Nashville, Tenn.
SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS.
Nov. 10-11. Annual meeting. Secy., Francis T. Bowles, 12 West 31st St., New York.
ST. LOUIS RAILWAY CLUB.
Nov. 11. "The Performance of a Four-Cylinder Compound Locomotive." Discussion. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.
CENTRAL RAILWAY CLUB.
Nov. 11. Secy., H. D. Vought, 114 Fifth Ave., New York city.
MONTANA SOCIETY OF ENGINEERS.
Nov. 12. Secy., A. S. Hovey, National Bank Bldg., Helena, Mont.
ENGINEERS' CLUB OF KANSAS CITY.
Nov. 14. "Rectification of the Red and Atchafalaya Rivers," A. F. Woolley, Jr. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.
THE LOUISIANA ENGINEERING SOCIETY.
Nov. 14. Secy., J. F. Coleman, 712 Union St., New Orleans, La.
NORTHWEST RAILWAY CLUB.
Nov. 15. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.
ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Nov. 15. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.
WESTERN RAILWAY CLUB.
Nov. 15. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.
ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Nov. 16. Secy., Frank H. Olmsted, Los Angeles, Cal.
BOSTON SOCIETY OF CIVIL ENGINEERS.
Nov. 16. Secy., S. E. Tinkham, City Hall, Boston, Mass.
ENGINEERS' CLUB OF ST. LOUIS.
Nov. 16. Secy., Richard McCulloch, 2401 N. Spring Ave., St. Louis, Mo.
WESTERN FOUNDRYMEN'S ASSOCIATION.
Nov. 16. Secy., B. M. Gardner, 1522 Monadnock Block, Chicago, Ill.
WESTERN SOCIETY OF ENGINEERS.
Nov. 16. "The Manchester Ship Canal," Elmer L. Corthell. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
Nov. 16. "Launhardt Formula and Railroad Bridge Specifications," H. B. Seaman. Secy., C. W. Hunt, 220 West 57th St., New York city.
NEW YORK RAILROAD CLUB.
Nov. 17. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.
SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Nov. 17. Secy., F. A. Charplot, P. O. Box 13, Savannah, Ga.
ENGINEERS' CLUB OF CINCINNATI.
Nov. 17. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.
TECHNICAL CLUB OF OMAHA.
Nov. 21. Secy., J. Harry Lawrie, Omaha, Neb.
ENGINEERS' CLUB OF MINNEAPOLIS.
Nov. 21. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.
ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Nov. 21. Secy., Marshall Morris, 16 Norton Bldg., Louisville, Ky.
NORTHWESTERN TRACK AND BRIDGE ASSOCIATION.
Dec. 16. Secy., D. W. Meeker, St. Paul, Minn.

ROCHESTER ENGINEERING SOCIETY.—A regular meeting of this society was held on Oct. 21, at which Mr. H. A. Nicholl, read a paper describing the storage battery equipment of the Rochester Ry. Co. This battery plant consists of 248 cells, weighing together 150 tons, and when complete will have a capacity of 700 ampere hours.

THE KANSAS GAS, WATER AND ELECTRIC LIGHT ASSOCIATION.—This is the name of a new association, recently formed at Topeka, Kan., for the promotion of mutual interests and for mutual benefit and protection of the gas, water and electric light interests of the State of Kansas.

The following officers were elected to serve during the ensuing year: Pres., L. T. Palmer, Leavenworth; First Vice-Pres., E. Willis, Atchison; Second Vice-Pres., A. T. Rogers, of Beloit; Third Vice-Pres., F. D. Alev, Wichita; Secy. and Treas., James H. Foley, Leavenworth; Executive Committee, Geo. B. Wing, R. C. Johnston and Jacob Mulvane.

NEW YORK ACADEMY OF SCIENCES.—The Astronomy and Physics Section of this society held a meeting at the house of the American Society of Mechanical Engineers, on Oct. 31, at which Prof. George W. Blodgett, Electrical Engineer of the Boston & Albany R. R., delivered an interesting illustrated lecture, entitled "Railroad Signalling, Past and Present." The lecture presented a large number of stereopticon views, illustrating the development of railways from early and primitive forms of roadbed and rolling stock to those at present in use. The subject of railway signalling was treated in a historical way, the complex interlocking systems of the present time were described in detail, and a model of the Hall system was shown in operation.

AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION.—This new association, which is now being organized, is an outcome of the action of the Roadmasters' Association of America in vot-

ing down a very wise proposition to change its name to the Railway Maintenance of Ways Association. Mr. A. Torrey, Chief Engineer of the Michigan Central R. R., is provisional chairman, and Mr. L. C. Fritch, Division Engineer of the Baltimore & Ohio Southwestern Ry., is Secretary of the new society. At a meeting held in Chicago, on Oct. 21, the chairman was instructed to appoint a committee to draft a constitution and a set of by laws. This committee will report at the next meeting, which is to be held in Buffalo, in March, 1899.

CIVIL ENGINEERS' CLUB OF CLEVELAND.—The semi-monthly meeting of this club was held on Oct. 25, with 41 members and visitors present.

The paper of the evening, entitled, "The Electric Motor in Shop and Mine," by Mr. Clarence M. Barbor, member, was read by the Secretary.

The paper treated of the development of the electric motor in its different forms, and of the different industries to which it has been applied. A comparison was made of the economics of steam and electric installations in manufacturing concerns, and the advantages and disadvantages of each pointed out. The advantages gained in the coal mining industries by the introduction of electricity were referred to. The efficiencies of electric and pneumatic drills were compared, the advantage still remaining with the pneumatic drill where percussion work is required.

W. H. Searles, Secy.

NEW ENGLAND WATER-WORKS ASSOCIATION.—The Secretary of this association, Mr. J. C. Whitney, announces that at the meetings to be held this winter, only one subject will be considered at each meeting. The subjects are as follows: Dec., "Pumping Engines"; Jan., "Street and Force Mains of Cast Iron, Wrought Iron, Steel and Wood"; Feb., "Filtration, Slow Sand and Mechanical"; Mar., "Organisms Which Cause Unpleasant Taste and Odors in Water Supplies."

At each of these meetings one or more leading papers will be given by some members of the association who are competent to treat the subject, after which it is expected that the members will freely discuss the subject, and also read short papers, giving facts and figures and their experiences which relate to the subject under consideration. This notice is given at this early date that all may have time to make ample preparation for the winter meetings.

ARCHITECTURAL LEAGUE OF NEW YORK.—A meeting of this association was held at the Art League building, New York city, on Nov. 1, to consider the question of "The Water Front of New York and Its Future Embellishment." Invitations to be present and take part in the discussion had been extended to the American Society of Civil Engineers and the Engineers' Club, and both societies were well represented.

The proceedings took the form of a verbal discussion, the stereopticon being used to illustrate the various schemes suggested. In general there were only two plans; one, to widen the marginal streets along the North and East River fronts, and the other to build some form of elevated structures. The pros and cons of these were briefly discussed, as were also the good points and defects of recreation piers. The question of the wisdom of emptying the city sewage into the rivers near to the recreation piers was broached and the ultimate necessity of a large intercepting sewer surrounding the city was pointed out.

Perhaps the most instructive talk of the evening was given by Geo. S. Morison, M. Am. Soc. C. E., who said that the development of the water front of New York was a commercial matter, and hence one for the civil engineer, with his utilitarian views, rather than the architect. Regarding the idea of laying out some extensive scheme for all time to come, he considered it far preferable to follow the custom of the Anglo-Saxon race and meet the special problems as they arose. In other words, it was impossible to anticipate the needs of 25 years from now, and what we might build to-day would be entirely unsuited for that time.

NEW YORK ELECTRICAL SOCIETY.—The 190th regular meeting of this society was held, as announced in our last issue, on Oct. 27, at the Pearl Street Station of the Brooklyn Edison Electric Illuminating Co. The meeting proper was very brief, owing to the considerable amount of ground to be covered in carrying out the inspection trips. The meeting was largely attended, and the total number, some 175, was divided into parties, which, under the guidance of men from the Edison Company, made the round.

The Pearl-Street Station, the first inspected, was designed and erected in 1889, with a capacity of 3,000 HP. It has since been enlarged, and now has 5,000 HP., with an ultimate capacity of 15,000. Except at maximum load, this station is supplied from the Union Station, which was visited later, with three-phase current at 6,000 volts. This is stepped down, and transformed by means of rotary converters to direct low tension current for use upon the Edison three-wire mains. The various points of interest in this station were examined, after which special cars were boarded, and the entire party proceeded to the great Bay Ridge Station, which, in many respects, is the most remarkable in the country.

The present building, designed to contain 15,000 HP., is only one-quarter the contemplated size of the final plant, which, it is expected, will be 60,000 HP. At present there are only two units installed. These consist of a Hamilton-Corliss 1,500 HP. engine connected to a 1,000 K-W. General Electric three-phase generator, furnishing, at full load, current at 6,600 volts, and a 3,000 HP. McIntosh, Seymour & Co. tandem, twin compound horizontal side crank engine, and a 2,000 K-W. general electric, three-phase generator, stationary armature type, also of 6,600 volts.

Current from these generators passes to the switch-board on a gallery at one end of the immense engine-room, thence out on the underground cables to the various substations, where it is transformed by rotary converters or induction motors, driving arc machines into the proper current for lighting, either incandescent or arc lamps.

One of the substations, Station "A," was next visited. This was formerly a steam plant. It is now a combination of storage batteries and arc light machines driven by 100 K-W. General Electric induction motors, directly on the 6,000 volt circuits, each motor driving two 120-lamp Brush machines, or 24 machines in all. This battery plant has 14,000 ampere hours' capacity, with regulating end switches, which are used in charging or discharging to adjust the voltage.

On an upper floor of this station the members and visitors were treated to a luncheon, after which the special cars were again boarded, and all carried back to the Brooklyn Bridge, where the parties disbanded.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.—The last regular meeting of the Institute was held Oct. 26, at the House of the American Society of Mechanical Engineers, New York city. Previous to the paper of the evening, the President, Dr. A. E. Kennelly, announced that the committee of seven appointed by the council to arrange for a co-operation between the Institute and the various colleges having testing laboratories had held its first meeting. This committee was appointed with an idea of creating a closer relation between the Institute and the colleges, so that any engineering problems arising in the minds of the members which needed laboratory apparatus and work for their proper solution, could be given to advanced students at the various engineering colleges.

A circular letter, giving a list of such problems, would in the near future be sent to the colleges, and it was hoped that all members would take advantage of this to submit all the problems that had occurred to them. They would then be forwarded to the various institutions, and when solved the solutions would be printed in the Transactions of the Institute, where they would be available to all. At the same time, the work could be printed in any other place.

Mr. A. A. Knudson then read a paper entitled "An Electrical Survey in the Borough of Manhattan, New York City," the substance of which will be given in our next issue. The discussion was limited almost entirely to a communication from Mr. William Maver, of the Empire City Subway Construction Co., New York city, which was read by the Secretary, Mr. R. W. Pope. Mr. Maver had inquired of the managers of the various gas companies regarding electrolysis of gas mains, and had received the general reply that there were no indications of any such action. In connection with his work, he had examined many conduits and cables in the city, and could, as a result, say positively that there was no evidence, at least up to the present, of electrolytic action.

NEW PUBLICATIONS.

REPORT, MASTER CAR BUILDERS' ASSOCIATION.—Secy., John W. Cloud, 974 Rookery, Chicago, Ill. Cloth, 6 × 9 ins.; pp. 452; illustrated.

This volume of the Association's annual report contains in full the proceedings of the conventions held at Saratoga, N. Y., June 15, 16 and 17, 1898, besides the usual plates of designs adopted as standards or recommended practice.

REPORT OF THE IOWA STATE RAILROAD COMMISSION.—Wm. W. Ainsworth, Secretary, Des Moines, Ia., Pub. Doc. Cloth, 6 × 9 ins.; pp. 419; map.

The report proper of the Commission occupies only ten pages, and is a brief resume of the year's work, containing very little of general interest. The remainder of the volume is devoted to a digest of decisions of the Iowa Supreme Court, relating to railways; operating statistics, railway laws; decisions of the Commission; complaints, and other routine matters, and concludes with a general index covering 53 pages, of all the volumes of reports of the Commission from 1878 to 1897, inclusive.

SOFT COAL BURNING.—By C. M. Higginson. 5th edition. The Railway Master Mechanic, Chicago. Pamph., 6 × 9 ins.; pp. 18.

This pamphlet treats of smokeless and economical combination of soft coal, but so far as we can discover the author advances nothing new or important on the subject. Much of the matter is of the same kind that may be found in all the books on the subject of combustion that have been published within the past 50 years, such as the theory of combustion, the value of introducing air above the grate, at or behind the bridge wall, etc. The author tells how smokeless combustion can be accomplished, naming as essential conditions, a good draft, open grate bars, an air supply over the fire, an intimate mixture of air with the burning coal gases, and distance in which to complete the combustion of the mixed air and gas, but he fails to mention one condition without which all the others combined will give only partial success, that is a large and highly heated combustion chamber lined with fire brick, in which the admixture of gas and air shall take place before it is allowed to touch the heating surface. The book contains also several old fallacies, copied from earlier writers, no doubt, such as that "smoke once formed cannot be done away with," and that a draft of ½-in. of water column is necessary with any kind of coal in all conditions of weather. The facts are that smoke can be burned, by passing it through a bed of incandescent coal, as is done in the Hanley down draft furnace, and that good bituminous and semi-bituminous coal may be burned with ¼-in. draft, with some boilers, in which the grate surfaces and the draft are as large in relation to the amount of coal to be burned. No mention is made of automatic stokers, without which any treatise on soft coal burning is incomplete.

TRADE PUBLICATIONS

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

BROWN UNDERGROUND ELECTRIC SYSTEM.—The Johnson Co., Johnstown, Pa. Pamph., 9⅜ × 6¼ ins.; pp. 34; illustrated.

In this pamphlet is given a description of the Brown surface contact electric street railway and also a number of illustrations of details of the contact blocks, car shoe, etc.

SOCKETS, SWITCHES AND CUT-OUTS.—The Bryant Electric Co., Bridgeport, Conn. Pamph.; 6 × 3¾ ins.; pp. 90.

This is a convenient list of the products of the Bryant Co., which include a variety of incandescent lamp fittings, switches, cut-outs, fuses, etc., and, in fact, everything pertaining to interior house wiring.

IMPROVED BRUSH ARC LAMPS.—General Electric Co., Schenectady, N. Y. Pamph; pp. 40.

In this attractive little pamphlet attention is called to the well-known "Brush" arc lamp in what may be termed its up to date form. The principle upon which these lamps operate is briefly given, together with some of the salient points of improvement over the old forms.

FIRE HOSE BRIDGES FOR CROSSING STREET RAILWAYS.—Rochester Hose Bridge Co., Rochester, N. Y. Pamph.; 8½ × 6 ins.

This pamphlet describes a device for use where fire hose must cross a street railway track. With this bridge the car runs up a very slight incline over the hose and down another incline. The length over all is 16 ft., and the greatest height 5 ins.

ROOF DRAINER.—Safety Appliance Co., Ltd., Wentworth Building, Boston, Mass. Pamph.; 9 × 6 ins.

This pamphlet calls attention to a device for use on open street cars, which adds to the comfort of passengers. It consists of a gutter arranged to catch the water shed from the car roof and hollow side handles through which the water passes to the ground.

MACHINE TOOLS.—Patterson, Gottfried & Hunter, Limited, 146-150 Centre St., New York. Paper; 9 × 6 ins.; pp. 32; illustrated.

This catalogue illustrates and gives the dimensions, weights and capacity of engine lathes, tool-grinders, polishing machines, tapping machines, etc., dealt in by this firm. These tools are made by the Springfield Machine Tool Co., Whitney Mfg. Co. and Builders' Iron Foundry.

BRIDGES AND DREDGING.—San Francisco Bridge Co., San Francisco, Cal.; New York Dredging Co., World Building, New York. Paper; 9 × 6 ins.; pp. 56; illustrated.

In this pamphlet are illustrated and described some of the bridges, piers, lighthouses, etc., built by the bridge company and work in excavation, dredging and filling performed by the dredging company, along with views of the dredgers and their fittings.

U. S. MAIL CHUTES.—Cutler Mfg. Co., Rochester, N. Y. Paper; 12½ × 9½ ins.; pp. 15; 10 photogravures.

This is a reprint of "Classical Architecture on the Shores of the Mediterranean." by Russell Sturgis, the well-known architect, illustrated by 10 photographic views of examples of Greek and Roman architecture. It is an interesting article and handsomely illustrated; and as it is a thing to be preserved, the Cutler Co. is to be congratulated upon its enterprise and good taste.

STREET LAMPS FOR ALTERNATING CURRENT CONSTANT POTENTIAL CIRCUITS.—Westinghouse Electric & Mfg. Co., Pittsburg, Pa. Circular; 7 × 10 ins.

This circular, numbered 88, calls attention to an improved street lamp for use on alternating circuits which permits the use of high tension currents and stepdown transformers, with the resulting saving in copper cost. The individual converters and fuse blocks accompanying each lamp are also illustrated and described.

GENERATORS AND ROTARY TRANSFORMERS FOR ELECTROLYTIC WORK.—This is circular number 55 of the Westinghouse series. It describes briefly the special forms of generators and rotary converters constructed by this company for use where large currents at low voltage are required. The text is accompanied by a number of excellent illustrations of several such machines and outline drawings and table giving the dimensions of parts.

SWITCHES, FROGS AND INTERLOCKING.—The Weir Frog Co., Cincinnati, O. Cloth, 8⅜ × 5 ins.; pp. 323.

This catalogue includes a varied list of switches, frogs and crossings, built up of T and girder rails, for use on steam, cable, electric and horse railways. Switchstands, slip switches and movable-point crossings are also included, while among the track accessories are bridge guards, expansion joints, rail braces, and foot guards. Derailing switches for sidings and for the crossings of street railways with steam railways are also shown, the latter requiring the car conductor to cross the railway track and operate a lever closing the switch. Several pages are devoted to industrial tracks of light rails on steel ties, and to special street railway work in the way of crossings, curves and junctions. There are also diagrams of switch layouts and tables of switch timbers. A new department in the company's catalogue is that of electric signaling and interlocking, in which is described a system covered by the patents of F. C. Weir, Joseph Ramsey, Jr., and others. The special feature of this system is that it employs electricity for operating the signals and switches, as well as for the locking movements.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Nov. 3.	Electric light fixtures,	Hudson, N. Y.	Oct. 27
Nov. 3.	U. S. building,	Chicago, Ill.	Oct. 20
	Advertised, Eng. News, Oct. 20 and 27.		
Nov. 3.	Roads, walks, etc.,	Fort Hancock, N. J.	Oct. 20
Nov. 3.	Highway work,	Pittsburg, Pa.	Oct. 20
Nov. 3.	Repairing sidewalks,	Cincinnati, O.	Oct. 13
Nov. 3.	Ditch drain,	New Castle, Ind.	Nov. 3
Nov. 3.	Viaduct substructures,	Nashville, Tenn.	Nov. 3
Nov. 4.	Steel bridges (2),	Tilbury, Ont.	Nov. 3
Nov. 4.	Macadamizing,	Boston, Mass.	Nov. 3
Nov. 4.	Asphalt and brick paving,	Chicago, Ill.	Nov. 3
Nov. 4.	Water mains,	Chicago, Ill.	Nov. 3
Nov. 4.	Piers and abutments,	Coshocton, O.	Oct. 13
Nov. 4.	Buckeye paving, etc.,	Dayton, O.	Oct. 27
Nov. 4.	Railroad grading (35 mls.),	Denmark, N. C.	Oct. 27
	Advertised, Eng. News, Oct. 27 and Nov. 3.		
Nov. 4.	Roof of armory,	New York, N. Y.	Oct. 27
Nov. 5.	Ocean Ave. improvement,	New London, Conn.	Oct. 27
Nov. 5.	Sewers,	East Cleveland, O.	Oct. 13
Nov. 5.	School building,	Marion, O.	Oct. 20
Nov. 5.	Wells and shafts,	Gila County, Ariz.	Oct. 20
Nov. 5.	Electric lighting,	Newtown, Pa.	Nov. 3
Nov. 5.	Sewers,	Palo Alto, Cal.	Nov. 3
Nov. 5.	Street bonds,	Woodsville, N. H.	Nov. 3
Nov. 5.	Brick and granite paving,	Waterbury, Conn.	Nov. 3
Nov. 7.	Electric plant,	New York, N. Y.	Nov. 3
Nov. 7.	Truss bridge,	Seattle, Wash.	Nov. 3
Nov. 7.	Drainage, etc.,	Albany, N. Y.	Nov. 3
Nov. 7.	Paving,	Montgomery, Ala.	Nov. 3
Nov. 7.	Tower lights,	Rock Island, Ill.	Nov. 3
Nov. 7.	Sewer,	St. Paul, Minn.	Nov. 3
Nov. 7.	Granite monument,	Providence, R. I.	Nov. 3
Nov. 7.	Sewers,	Sheridan, Ind.	Nov. 3
Nov. 7.	Pipe sewers,	Helena, Mont.	Nov. 3
Nov. 7.	Sewers,	Santa Ana, Cal.	Nov. 3
Nov. 7.	Paving,	Jersey City, N. J.	Nov. 3
Nov. 7.	Brick paving,	Lawrenceburg, Ky.	Nov. 3
Nov. 7.	Brick paving and curbing,	Dayton, O.	Nov. 3
Nov. 7.	Reservoir covering,	Doylestown, Pa.	Nov. 3
Nov. 7.	Bridge at Curtis' Ford,	Wilkesboro, N. C.	Oct. 20
Nov. 7.	Viaduct superstructure,	Cincinnati, O.	Oct. 13
Nov. 7.	Bridge,	Webster St., Oakland, Cal.	Oct. 13
Nov. 7.	Plank sidewalks, (1 year),	Cincinnati, O.	Oct. 13
Nov. 7.	Wooden bridge (190 ft. long),	Magnolia, Miss.	Oct. 13
Nov. 7.	Brick paving,	Toledo, O.	Oct. 13
Nov. 7.	Improving electric plant,	Topeka, Kan.	Sept. 22
Nov. 7.	Sewers,	Albany, N. Y.	Oct. 27
Nov. 7.	Sewers,	Wabash, Ind.	Oct. 27
Nov. 7.	Boilers for water-works,	St. Paul, Minn.	Oct. 27
Nov. 7.	Water flume,	New Whatcom, Wash.	Oct. 27
Nov. 7.	Water-works franchise,	San Bernardino, Cal.	Oct. 27
Nov. 7.	Arc lighting,	Lebanon, Pa.	Oct. 27
Nov. 8.	Surveys,	Olympia, Wash.	Oct. 20
Nov. 8.	Levee work,	New Orleans, La.	Nov. 3
Nov. 8.	Sidewalks,	Kansas City, Mo.	Nov. 3
Nov. 9.	Grading and draining,	Cleveland, O.	Nov. 3
Nov. 9.	Hospital building, etc.,	Ward's Island, N. Y.	Nov. 3
Nov. 9.	Paving bonds,	Lansingburg, N. Y.	Nov. 3
Nov. 9.	Repair of arc lamps,	Chicago, Ill.	Nov. 3
Nov. 9.	School building (2),	Buffalo, N. Y.	Nov. 3
Nov. 9.	Cement sidewalks,	Indianapolis, Ind.	Nov. 3
Nov. 9.	Grading, graveling, etc.,	Union City, Ind.	Nov. 3
Nov. 9.	Water mains,	Cincinnati, O.	Nov. 3
Nov. 9.	Grading and draining,	Cleveland, O.	Nov. 3
Nov. 9.	Paving, etc.,	Cohoes, N. Y.	Oct. 20
Nov. 9.	Improving drawbridge,	Camden, N. J.	Oct. 20
	Advertised, Engineering News, Oct. 20.		
Nov. 9.	School building,	Fort Sill, Okla.	Oct. 20
Nov. 9.	Electric light plant,	Toronto, Ont.	Oct. 6
	Advertised, Engineering News, Oct. 6.		
Nov. 9.	Electric energy,	Toronto, Ont.	Oct. 6
	Advertised, Engineering News, Oct. 6.		
Nov. 9.	Bridge,	Sable Creek, San Jose, Cal.	Oct. 13
Nov. 9.	Electric light franchise,	Visalia, Cal.	Oct. 27
Nov. 10.	Water supply,	Belem, Brazil	Sept. 22
Nov. 10.	Water bonds, ($30,000),	New Richmond, O.	Oct. 20
Nov. 10.	College building,	Cincinnati, O.	Oct. 20
Nov. 10.	Court house bonds,	Doniphan, Mo.	Oct. 20
Nov. 10.	Fish hatchery, etc.,	Spearfish, S. Dak.	Oct. 20
Nov. 10.	Electric bonds,	New Richmond, O.	Oct. 20
Nov. 10.	Building repairs,	Brooklyn, N. Y.	Nov. 3
Nov. 10.	Summit Ave. improvement,	St. Paul, Minn.	Nov. 3
Nov. 10.	Boiler house,	Morris Plains, N. J.	Nov. 3
Nov. 10.	Electric plant,	Wynne, Ark.	Nov. 3
Nov. 10.	Steel and iron bridges,	Savannah, Ga.	Nov. 3
Nov. 10.	Gas well,	Buffalo, N. Y.	Nov. 3
Nov. 10.	Macadam road,	Enfield, Mass.	Nov. 3
Nov. 10.	Water-works,	Wynne, Ark.	Nov. 3
Nov. 11.	Dredging the Erie basin,	Buffalo, N. Y.	Nov. 3
Nov. 11.	Pipe sewers,	Troy, N. Y.	Nov. 3
Nov. 11.	Bridges, (3),	Olivet, S. Dak.	Oct. 13
Nov. 11.	Bridges (2),	Colfax, Wash.	Oct. 27
Nov. 12.	Water bonds ($130,000),	Reno, N. Mex.	Oct. 13
Nov. 12.	Buildings ($106,250),	Mare Island, Cal.	Oct. 20
Nov. 12.	Dredging,	Port Royal, S. C.	Oct. 20
Nov. 12.	Road work,	Cincinnati O.	Oct. 27
Nov. 12.	Fire alarm system,	Lancaster, O.	Nov. 3
Nov. 14.	Bridge over Cedar River,	Waverly, Ia.	Nov. 3
Nov. 14.	Repairing pumping engines,	Boston, Mass.	Nov. 3
Nov. 14.	Grading a road,	Santa Barbara, Cal.	Oct. 27
Nov. 14.	Steel bridge (100 ft.),	Houston, Tex.	Oct. 20
	Advertised, Eng. New, Oct. 20 to Nov. 3.		
Nov. 14.	Removing wreck,	Rockland Harbor, Me.	Oct. 13
Nov. 15.	Industrial school,	Ellendale, N. Dak.	Oct. 13
Nov. 15.	Water-works addition,	Seattle, Wash.	Sept. 22
	Advertised, Eng. News, Sept. 22 to Nov. 10.		
Nov. 15.	Jail work,	San Saba, Tex.	Sept. 29
Nov. 15.	Electric lighting,	Greensboro, N. C.	Oct. 6
Nov. 15.	Dredging bay,	Coos Bay, Ore.	Oct. 20
	Advertised, Eng. News, Oct. 20 to Nov. 10.		
Nov. 15.	Water-works,	Rock Hill, S. C.	Oct. 27
	Advertised, Eng. News, Oct. 27 and Nov. 3.		
Nov. 15.	Machinery and tools,	Norfolk, Va.	Nov. 3
Nov. 15.	Electrical machinery,	Portsmouth, N. H.	Nov. 3
Nov. 15.	Bridge (131 ft. long),	Canal Fulton, O.	Nov. 3
Nov. 15.	Well,	Elburn, Ill.	Nov. 3
Nov. 16.	Rebuilding sewers,	New York, N. Y.	Nov. 3
Nov. 16.	Reformatory building,	Mansfield, O.	Oct. 27
Nov. 16.	Electric plant,	Knowle, England	Oct. 27
Nov. 16.	Electrical machinery,	Cleveland, O.	Oct. 20
Nov. 16.	Electric lighting,	Camden, N. J.	Oct. 13
	Advertised, Eng. News, Oct. 13 to 27.		
Nov. 17.	Hospital building,	Siletz, Ore.	Oct. 27
Nov. 17.	Road in Sage Canyon,	Cal.	Oct. 27
Nov. 17.	School building,	Passaic, N. J.	Nov. 3
Nov. 17.	Water-works,	McComb, Miss.	Nov. 3
Nov. 18.	Building materials,	Chemawa, Ore.	Nov. 3
Nov. 19.	Local sewers,	Evansville, Ind.	Nov. 3
Nov. 19.	Water bonds ($22,000),	Bainbridge, N. Y.	Nov. 3
Nov. 21.	Iron fence, etc.,	Cleveland, O.	Nov. 3
Nov. 21.	Brick sewers,	Toledo, O.	Oct. 27
Nov. 21.	Naval supplies,	St. Augustine, Fla.	Oct. 27
	Advertised, Eng. News, Oct. 27 to Nov. 17.		
Nov. 21.	Government bldgs (8),	Sophia, Bulgaria.	Sept. 29
Nov. 22.	U. S. building,	Norfolk, Va.	Oct. 27
	Advertised, Eng. News, Oct. 27 and Nov. 3.		
Nov. 22.	Bridge foundations,	Washington, D. C.	Nov. 3
	Advertised, Engineering News, Nov. 3.		
Nov. 24.	Brick sidewalk,	Huntington, W. Va.	Nov. 3
Nov. 25.	Water pipe, etc.,	Honolulu, H. I.	Oct. 27
Nov. 26.	Crane,	Port Royal, S. C.	Oct. 27
Nov. 26.	Boat shelter roof,	Mare Island, Cal.	Oct. 20
Nov. 26.	Sawmill, chimney, etc.,	Mare Island, Cal.	Nov. 3
Nov. 28.	Removing wreck,	Port Chester, N. Y.	Nov. 3
	Advertised, Eng. News, Oct. 27 to Nov. 17.		
Nov. 28.	Water-works,	Florence, Colo	Nov. 3
	Advertised, Eng. News, Nov. 3 and 10.		
Nov. 28.	Sewers,	North Bend, Ind.	Nov. 3
Nov. 28.	Heating plant,	Henderson, Colo.	Nov. 3
Nov. 28.	Tubular boilers, (2),	San Francisco, Cal.	Nov. 3
Nov. 28.	Removing wreck,	Portchester Harbor, N. Y.	Oct. 27
Nov. 29.	Water-works,	Ft. Berthold, N. Dak.	Nov. 3
Nov. 30.	Dry dock,	Algiers, La.	Oct. 20
Nov. 30.	Bridge, etc., and plans,	Moline, Ill.	Oct. 6
	Advertised, Eng. News, Oct. 6 and 13.		
Dec. 1.	Electric lighting,	Sumter, S. C.	Oct. 6
Dec. 1.	Electric light plant,	Clinton, Ill.	Oct. 13
Dec. 2.	Arc lighting,	Asheville, N. C.	Oct. 13
Dec. 5.	Pumping engine,	Oil City, Pa.	Oct. 27
	Advertised, Eng. News, Oct. 27 to Nov. 10.		
Dec. 6.	Street bonds,	Springfield, O.	Nov. 3
Dec. 7.	Changing Van Buren St. bridge,	Chicago, Ill.	Oct. 20
Dec. 8.	Lease of water power,	Indianapolis, Ind.	Nov. 3
Dec. 10.	Intercepting sewers,	Washington, D. C.	Nov. 3
	Advertised, Engineering News, Nov. 3.		
Dec. 15.	Storm sewers,	Denver, Colo.	Oct. 13
Dec. 21.	Court house annex,	Atlanta, Ga.	Nov. 3
Dec. 22.	Superstructure,	Lorain, O.	Nov. 3
Dec. 31.	Plans for station, etc.,	Stockholm, Sweden.	June 23
Jan. 1.	City hall plans,	Bridgeport, Conn.	Aug. 18
Jan. 2.	Bridge,	Quebec, Que.	Sept. 29
	Advertised, Eng. News, Sept. 29 and Oct. 6.		
Jan. 2.	Arc lighting,	Vincennes, Ind.	Oct. 27
Jan. 6.	Water-gas plant,	Johannesburg, So. Africa.	Oct. 27
Jan. 6.	Extension, electric plant,	Johannesburg, S. Af.	Oct. 27
Feb. 2.	Electric lighting,	New Orleans, La.	Nov. 3
Feb. 10.	Jail building,	Keyser, W. Va.	Sept. 29
No date.	Missouri road,	Quincy, Ill.	Nov. 3
"	Brick,	Esquimault, B. C.	Nov. 3

RAILWAYS.

ALLEGHENY & WESTERN.—The work of boring the tunnel on this line through the Simpson Hill has been completed by Bennett, Talbott & Smith, of Greensburg, Pa. The tunnel is 2,317 ft. in length, and has been under construction for five months. J. M. Floesch, Ch. Engr., Kittanning, Pa.

ALLEGHENY JUNCTION.—A. H. Keith, Pres., Pittsburg, Pa., informs us that this company was incorporated merely to construct one mile of railway in Pittsburg to connect the Allegheny Valley Ry. with the Pittsburg Junction R. R. and this with the Baltimore & Ohio and the Pittsburg & Western Rys. The greater portion of the line has been constructed and is in operation. J. W. Patterson, Ch. Engr., Pittsburg.

BISMARCK & POTOMAC VALLEY.—This company is said to have been incorporated in West Virginia, with a capital stock of $100,000, by C. R. Herr and Samuel Mason, of Philadelphia, Pa. P. M. Howard, Forest Bldg., Philadelphia, may be addressed.

BRITISH COLUMBIA.—It is announced that D. Vincent and I. Thompson will apply to the legislature for the granting of a charter to a company, which proposes to construct a railway from Midway, B. C., along the valley of Kettle Creek to a point near the mouth of Beaver Creek.—A charter has been granted to the Cariboo-Omeneca Charter Co. for the construction of a railway from some point on the Canadian Pacific Ry. between Kamloops and Aschroft, B.C., to a point near Barkersville. Under the charter, work must commence on the line before May next.

CARP, ALMONTE & LANARK.—Reports state that the construction of this proposed railway from the Ottawa, Arnprior & Parry Sound branch of the Canadian Atlantic Ry., at Carp, Ont., to the Canadian Pacific Ry., at Madoc, via Almonte. The line is designed to open up a new section of Ontario, and also to form a shorter connection between Toronto and Ottawa. William Stafford and Andrew Bell, of Almonte, Ont., are said to be interested.

CHATTAHOOCHEE VALLEY.—L. Lanier, Pres., West Point, Ga., informs us that a company composed of Z. Hagedorn, L. S. Turner and N. L. Atkinson, proposes to build a line from Riverview to Columbus, Ga.

CHICAGO, SIOUX FALLS & PACIFIC.—Reports state that this company, formerly known as the Sioux Falls & Pacific, has been incorporated with a capital stock of $8,000,000, to build a line from Sioux Falls, S. Dak., to the Wyoming state line.

CLEVELAND & NEW CASTLE.—Work is reported to have stopped on this proposed extension of the Lake Erie & Western, between Akron, O., and New Castle, Pa. The roadbed was nearly completed, and about $1,000,000 has been expended on the line in the last three months. It is said that the company has secured control of the Pittsburg & Western Ry., which runs over part of the same field. Pres., J. H. McVey; Ch. Engr., J. H. Pirkey, of Youngstown, O.

COLORADO VALLEY.—Mr. Sloan, of Trammel & Co., Sweetwater, Tex., has been appointed receiver of this company, and intends to complete the line from Sweetwater to San Angelo, a distance of about 75 miles. A further extension is also projected from San Angelo to a connection with the Atchison, Topeka & Santa Fe at Sugden. Geo. S. Moore, Ch. Engr., Sweetwater.

CRYSTAL RIVER.—Orman & Crook, of Pueblo, Colo., have the contract for the construction of a portion of this railway, which is now being completed from Carbondale, Colo., to Redstone, a distance of about 34 miles. Surveys are in progress for additional lines. The work is said to be quite heavy. J. A. Kebler, Gen. Mgr., Denver, Colo.

DAVENPORT, ROCK ISLAND & NORTHWESTERN.—Reports state that J. W. Gates, Pres. Illinois Steel Co. Chicago, and others, intend to revive the project of constructing this proposed short line, designed to connect the trunk lines passing through Davenport, Ia., and Rock Island and Moline, Ill.

DETROIT & LIMA NORTHERN.—Press repors state that a new line will be built by this company from Peoria, Ill., to Columbus, O., thus providing a continuous system from Chicago to Norfolk. J. R. Megrue, Gen Mgr., 120 Griswold St., Detroit, Mich.

FLORIDA EAST COAST.—Bids are asked until Nov. 10 for furnishing this company with 200,000 all heart-pine cross-ties. For specifications and information address E. Ben Carter, Roadmaster, St. Augustine, Fla.

GREAT EASTERN.—Surveys have been made and bonds will be issued so as to begin work soon on this proposed railway from Selma to Goldsboro, and thence to the coast, a distance of 130 miles; estimated cost, $2,700,000. Pres., J. W. Lynch, Kinston, N. C.; Gen. Mgr., J. H. Macleary, Suffolk, Va.

ILLINOIS CENTRAL.—This company is to push the work of constructing its proposed Fort Dodge & Omaha division, to be about 200 miles in length; grading will be done along the line as fast as it is located.—The 5-mile branch from Fort Dodge to Tara, Ia., is being double-tracked, requiring the construction of bridges across the Lizard and Des Moines rivers.—The grading of the line between Otto and Gilman, Ill., a distance of 21 miles, is said to be in progress. The work is light with a maximum grade of 26 ft. The American Bridge Works will erect one iron bridge about 96 ft. in length. D. Sloan, Ch. Engr., Park Row, Chicago, Ill.

KEOKUK & WESTERN.—A. C. Goodrich, Gen. Mgr., Keokuk, Ia., informs us that nothing further has been done towards the construction of this railway from Calnesville to Pattonsburg, Mo., than the completion of surveys. There has been trouble over securing the right of way.

KELLYTON & ROCKFORD.—J. P. Batson, Rockford, Ala., informs us that the preliminary survey of this proposed line from Kellyton to Rockford, 15 miles, was made on Oct. 25. It is expected that contracts will be let in January or February. John L. Cowan, Opelika, Ala.

LOUISVILLE, HENDERSON & ST. LOUIS.—A movement is on foot at Hartford, Ky., looking to a new line of railway to connect that city with the Fordsville branch of this system, at Mitchell's Station, via Dundee and Sulphur Springs, a distance of about 19 miles. Jas. F. Carson, Secy. of Hartford Commercial Club, of Hartford, is interested.

MISSISSIPPI RIVER, HAMBURG & WESTERN.—L. A. Cole, Pres., 100 William St., New York, informs us that 20 miles of this proposed railway have been completed and put in operation, and that capital has been secured, and all the contracts let for completing the line from Hamburg, Ark., to Lima Landing, on the Mississippi River, a total distance of 40 miles. Mgr., J. M. Parker, Hamburg, Ark.

MISSOURI PACIFIC.—Press reports state that this company will build at once an extension to its St. Louis, Iron Mountain & Southern branch, from Little Rock to Fort Smith, Ark., on the south side of the Arkansas River. Surveys are said to have been started. C. G. Warner, Vice-Pres., St. Louis, Mo.

NASHVILLE & KNOXVILLE.—A. J. Crawford, Pres., Terre Haute, Ind., informs us that surveys have been completed for the proposed extension from Monterey to Glen Mary, via Glades, Tenn., 35 miles, but that work has not yet been commenced.

NEW MEXICO & WESTERN.—G. M. Latimer, Pres., East Las Vegas, N. Mex., informs us that work will not be started until next spring on this proposed railway from Maxwell City to Taos, N. Mex., a distance of 100 miles. J. B. Latimer, Ch. Engr.

NEW YORK, WYOMING & WESTERN.—It is announced that this company, which is to build an outlet to tidewater, has just completed an important agreement with the Erie & Wyoming Valley R. R., running from Scranton, Pa., to Hawley, and to Port Blanchard, south of Pittston, by which the new road can use the Erie & Wyoming tracks. This gives it connections with nearly every coal mine not belonging to the railway corporations. The present purpose of the new concern is to build its line from Jersey City to the village of Wimmers, on the Erie & Wyoming Valley line.

NORTHERN PACIFIC.—This company is considering plans for the construction of a new cut-off from Missoula, Mont., to Pasco, Wash., over a pass in the Rocky Mountains, thus shortening the distance by about 100 miles.

OHIO.—Edward W. White, Vice-Pres. Cincinnati, Georgetown & Portsmouth R. R., Cincinnati, O., has been awarded the contract for the construction of a railway track for the water-works commission to the eastern pumping station at California, at $7,378. Full bids on the work were published in our last issue.

PECOS VALLEY.—The railway has been completed to Summerfield, Castro county, Tex., and all the necessary material for the bridges over the Spring, Berrendoes and Pecos rivers is now at Roswell, N. Mex.

PENNSYLVANIA.—As a result of the recent inspection of this line, it is said that double-tracking will be undertaken between Chicago and Logansport Ind., involving the expenditure of about $1,000,000; also that a number of curves will be removed. Pres., Frank Thomson, Broad St. Station, Philadelphia.

POINT HARBOR & TERMINAL JUNCTION.—This company was incorporated in New York, Oct. 29, with a capital stock of $100,000, to build a steam surface railway for the transportation of freight only, from a junction of the Terminal Ry., of Buffalo with the Lake Shore & Michigan Southern Ry. at Smoke's Creek, to Buffalo Harbor at Stony Point, in West Seneca, Erie county, a distance of four miles. The directors are: Edward T. Hingston, Stephen Lockwood, S. Munch Kellander, Herbert Meldrum, Stephen T. Lockwood, William E. Hingston, Harry L. Lockwood, Charles McAllester and John H. Lockwood, of Buffalo, N. Y.

RUTLAND-CANADIAN.—A bill has been introduced in the legislature of Vermont providing for the incorporation of the Rutland-Canadian R. R. Co., with a capital stock of $1,000,000. The proposed incorporators are Dr. W. Seward Webb, Frank R. Wells, Wallace C. Clement, H. E. Smith, Frederick W. Wilder, W. W. Stickney, George Pottum, John W. Stewart and Percival W. Clement. Another bill was introduced allowing the Rutland R. R. Co. to buy or control any railway in the county or elsewhere.

SABINE PASS & NORTHWESTEN.—This company is reported to have been incorporated in Texas with capital stock of $400,000, to construct a railway from Sabine Pass to Bonham, Tex., a distance of about 300 miles. W. H. Brooker, San Antonia, Tex.; R. M. Lusk, Bonham, and others, are interested.

ST. LOUIS, PEORIA & NORTHERN.—This company contemplates, according to reports, the extension of its system from Clinton to Chicago, via Peoria, Ill., requiring the construction of about 250 miles of track; estimated cost, $13,000,000. Pres. and Gen. Mgr., W. E. Guy, St. Louis, Mo.

UNION, COVE & VALLEY.—G. E. Howe, Ch. Engr., Union, Ore., informs us that the surveys have all been made and right of way obtained for this new line from Cove to Union, a distance of 11.15 miles. The company is doing its own work and has the grading completed; no iron has yet been laid. Pres., E. P. McDaniel, Cove, Ore.

WYOMING.—E. H. Saltiel, Pres. of Wyoming Land, Iron & Coal Co., Rawlins, Wyo., informs us that the only railway that will probably be built from the main line of the Union Pacific R. R. into the Seminoe mining district, will run from Grenville station, six miles west of Fort Fred Steele, to the iron and coal mines and limestone quarries of this company at Iron City, 24 miles distant. This company will also construct new blast furnaces, etc.

STREET AND ELECTRIC RAILWAYS.

BOSTON, MASS.—The railroad commissioners have approved of the location of new street railway tracks on Walnut and Humboldt Aves.

EXETER, N. H.—At the annual meeting of the Exeter St. Ry. Co. an issue of $50,000 of new stock was authorized for track extension, as was a 10-year lease of the Hampton & Amesbury line, the construction of which will be begun at once. Pres., William Lee; Ch. Engr., J. S. Adams.

BABYLON (L. I.), N. Y.—Preparations are under way for the construction of the New York and North Shore Ry. from Babylon to Northport, a distance of 16 miles. Surveys have been made and the consent of the property owners is being secured. This company is also reported to have let the contract for grading the road from the Sanford Ave. tracks in Flushing to Jamaica, to Thos. J. McKenna, of Flushing. The contracts for laying the ties and steel rails has been let to Hogan Bros.

BUFFALO, N. Y.—It is reported that the Buffalo & Lockport Ry. Co. proposes to double-track its roadbed from Tonawanda to Lockport during the next six months; also that a new power station will be built midway between these cities.

GLEN FALLS, N. Y.—The Green sawmill on the canal between Glen Falls and Sandy Hill will be fitted up as a reserve power station, according to reports, for the Glen Falls, Sandy Hill & Fort Edward St. R. R. Ch. Engr., E. A. Clark.

KINGSTON, N. Y.—The Colonial City Traction Co., of Kingston, has certified to the Secretary of State that it proposes to extend its line from Strand and Gill Sts. to Bath Beach. Pres., C. M. Preston, 22 East Strand St.

NIAGARA FALLS, N. Y.—The Niagara Falls & Suspension Bridge Ry. Co. has stated its intention to lay a 94-lb. rail on 2d St., next spring.

NYACK, N. Y.—We are informed that the track-laying and overhead construction work on the proposed electric railway to be built at Nyack, for the Nyack Traction Co., has been let to B. F. Sweeten & Son, Camden, N. J., as stated in our last issue. The length of the line will be nine miles, and the motive power, 700 HP. Isaac A. Walker & Son, Girard Bldg., Philadelphia, Pa., are the general contractors.

CAMDEN, N. J.—An ordinance was introduced in the council, Oct. 27, granting the right of way for a double-track elevated railway for an electric line projected between Philadelphia and Atlantic City. The applicants are Walter N. Boyer, Frederick S. Dickinson, Lewis W. Moore and Daniel Caldwell.

NEW BRUNSWICK, N. J.—It is announced that the Brunswick Traction Co. has completed the purchase of the New York & Philadelphia Traction Co.'s property in New Jersey. The only line that has been completed by this latter company is that running from Bound Brook to Raritan, a distance of about seven miles, which is part of the main line projected from New York to Philadelphia. Pres., G. Krueger, New Brunswick.

PHILADELPHIA, PA.—W. Caldwell, Stephen Girard Bldg., is said to have completed plans and specifications for a car barn and power house for the Southwestern Traction Co., at Penrose Ferry, Schuylkill River. It will be of brick and iron, 200 × 50 ft., with slag and tin roofing.

NEWPORT NEWS, VA.—Reports state that Alexander Brown & Sons, of Baltimore, Md., and others have purchased a controlling interest in the Newport News, Hampton & Old Point Ry. Co., and that a general consolidation of this company, the Newport News & Old Point Ry. & Electric Co. and the Chesapeake Light & Power Co. will be effected. Extensive improvements are contemplated. Pres., W. J. Payne, Richmond, Va.; Treas., H. L. Schmelz, Hampton, Va.

NEW ORLEANS, LA.—It is reported that the Orleans & Jefferson Ry. Co. has made arrangements for the grading of its proposed street railway. Engr., Robert R. Zell, 708 Union St.

VICKSBURG, MISS.—The Vicksburg Electric St. R. R. Co. is stated to have awarded a contract for the construction of four miles of electric railway, to be ready for operation by Dec. 1. Secy., M. J. Mulvihill, of Vicksburg.

CINCINNATI, O.—The Cincinnati, Lawrenceburg & Aurora Electric St. Ry. Co. was incorporated, Oct. 24, with a capital stock of $10,000, with headquarters at Aurora, to construct a line which will be a continuation of the system of electric railway which was built from Dayton, O., to Hamilton last year, and completed from the latter city to Cincinnati this year. The incorporators are, J. C. Hooven, George H. Helvey, G. A. Rentchler, C. E. Hooven and Fred D. Schafer.——The Mill-Creek Valley St. Ry. Co. is said to have contracted with the International Construction Co., of Detroit, New York and London, to construct its line from Cincinnati to Hamilton, for about $1,000,000, before June 1, 1899. A power house will be built at Hartwell. The main line will go direct up the Springfield Pike, right of way over which is assured. A Corliss engine will be furnished by the Arbuckle-Ryan Co., of Toledo; boilers by A. Lewis, of Cincinnati, and electric apparatus by the Simmons-Holske Co., of Chicago.

CLEVELAND, O.—The board of control has granted permission to the Little Consolidated St. Ry. Co. to extend its Superior St. cable line from Doan St. to the easterly city limits. Supt., G. G. Mulhern, Western Reserve Bldg.

COLUMBUS, O.—The Columbus Central St. Ry. Co.'s property has been ordered to be sold, according to reports, in order to terminate the receivership.

DAYTON, O.—The Dayton & Eastern Traction Co. has been incorporated, with a capital stock of $10,000, to operate an interurban electric railway. The directors are Henry B. Pruden, George E. Wright, H. O. Cox, William A. Mays and W. S. McConnaughey.——The Dayton & Xenia Traction Co. has also been incorporated to build an electric railway; capital stock, $300,000. The directors are J. M. Wilson, O. O. Ozias, F. D. Bittinger, Isaac G. Kennedy and Philip A. Kemper.

LANSING, MICH.—L. C. Chase, Dansville, Mich., informs us that the surveys have been made and the right of way obtained for the proposed Lansing, Dexter & Ann Arbor Electric Ry. from Lansing to Ann Arbor, via Holt, Mason, Dansville, Pinckney and Dexter, a distance of 61 miles. A contract has been made with John F. Wilmot, 516 Union Trust Bldg., Detroit, Mich., to construct and equip the lines, and he is now sub-letting the work. The route is through a productive portion of Michigan, connecting the Huron lakes. Pres., C. A. Mapes, Lansing.

VERNON, MICH.—The Vernon township board has granted a franchise to the Long Lake, Durand & Corunna Electric Ry. Co. The company now has a clear right of way, and expects to begin work next April.

CHICAGO, ILL.—The Illinois Traction Co. has been incorporated, with a capital stock of $100,000, by Augustus Kelly and others, connected with the law firm of Matz, Fisher & Boyden, 107 Dearborn St. The proposed route is from the terminus of the Chicago City Ry. at 75th St. and South Chicago Ave., and thence to Houston Ave. and 93d St., South Chicago.

KENOSHA, WIS.—The Milwaukee, Racine & Kenosha Ry. Co. has been granted a franchise by this city, and it is said that work will begin soon, so that the line could be operated before winter sets in.

ST. LOUIS, MO.—We are informed that Enright & Tiernan, 7th and Cerre Sts., St. Louis, contractors for the St. Louis & Belleville Electric Ry., have about completed their contract between East St. Louis and Belleville, Ill., but that they will have 45 miles additional to sub-let in a few days. The grades on this road are 3%, curves 30°, gage 4 ft. 10 ins., and the line is expected to provide both a freight and passenger service.

HAMILTON, ONT.—W. I. Degear, Grimsby, Ont., is said to have been awarded the contract for the construction of the Hamilton Radial Electric Ry., to Port Nelson. Pres., A. Turner, 90 James St., North.

BURNLEY, ENGLAND.—We are informed that the town clerk of Burnley is asking for information as to the relative values of the overhead trolley wire system and the underground conduit system. Burnley has just taken over the tramway system and is thoroughly reconstructing it, so the matter may be of financial importance to those interested in electrical tramways. Further information may be obtained from Milo R. Maltbie, Secy. of Reform Club, 52 William St., New York.

RHEIMS, FRANCE.—Press reports state that La Compagnie de Tramways de Rheims, Sharbeck, Brussels, Belgium, is about to change the motive power of the passenger railways of this city from horse power to the electric trolley system. Contractors and furnishers of material in the United States will probably have an excellent opportunity to compete. The city authorities have given permission to make the change.

BERLIN, GERMANY.—Press reports state that Wandruzska & Co., Engineers and Contractors, of Berlin, have secured a concession for a projected electric railway between Erkner and Rudersdorf, and that they are negotiating for the purchase of material in the United States in order to get early deliveries.

WARSAW, RUSSIA.—Bids are asked by the municipal council of Warsaw for the exploitation of the tramways of Warsaw under municipal control. It is intended to replace the present horse car system by electric traction. For information address the president of the city.

ELECTRIC LIGHT AND POWER.

PORTLAND, ME.—J. W. Fogg writes us that the plans for the proposed plant are not sufficiently mature to furnish details as yet.

PORTSMOUTH, N. H.—Bids are asked until Nov. 15 for furnishing a switchboard, a dynamo, five motors and one block and dead-eye machine for the navy yard. Edwin Stewart, Paymaster-Gen., U. S. N., Washington, D. C.

BRANDON, VT.—Local papers state that E. D. Blackwell, formerly treasurer of the Neshobe Electric Co., has secured control of the entire water power of Sucker Brook west of the Goshen line and will form a company to develop the power and bring it to Brandon. The water power is the fall which is known as Llana Cascade, and with the falls immediately above and below the cascade Mr. Blackwell has a fall of something over 350 feet, and it is said he will bring to Brandon about 1,000 HP.

LAWRENCE, MASS.—Local papers state that plans are being considered for removing the electric plant of the Lawrence Gas Co. from the present location to a site near Butler's Mills, South Lawrence, where better water power may be secured. Treas. and Mgr., C. J. R. Humphreys.

SALEM, MASS.—J. Clifford Entwisle, Cy. Clk., writes us that the city does not anticipate building a municipal plant, as reported last week.

WORCESTER, MASS.—The county commissioners received the following bids Oct. 25 for furnishing and installing a plant for the new court house:

Armington & Sims, Boston, Sims engine	$3,525
Dick & Church, Boston	3,770
American Engine Co., Boundbrook, N. J.	3,587
Edwin C. Lewis, Boston	3,647
Plummer, Ham & Richardson, Worcester	3,353
Page Electric Co., Worcester	3,245
Walworth Supply & Construction Co., Boston	3,177
Ridgeway Dynamo & Engine Co., Boston	3,250
Bibbee, White & Co., Boston	3,745
Columbia Electric Co., Worcester	3,318
Charles D. Parker, Worcester	3,525

ANSONIA, CONN.—It is stated that the E. A. Perkins Electrical Co. has increased its capital stock from $5,000 to $20,000. The company has purchased the lands and buildings thereon, which were owned by Edison Perkins.

AKRON, N. Y.—The board of trustees will probably soon ask for bids for constructing the proposed plant, according to reports.

ALBANY, N. Y.—The question of a municipal plant is being considered. Alderman Geo. H. Stevens may be addressed.

CANANDAIGUA, N. Y.—M. D. Munger writes us that nothing can be done in regard to building a plant until the franchise has been granted, it having already been asked for by Mr. Munger and Thos. H. Bennett. The plant proposed will have a 2,000 light alternator, an engine of about 175 HP, and, possibly, an arc light dynamo of 65 lights.

GENEVA, N. Y.—Mayor Herendeen has vetoed the second light contract. His objections are that the company does not agree to furnish 2,000 c. p. lights; that the contract does not require 3,500 hours of lighting before offered; that a franchise would be given away, while parties have offered to pay for it and that the contract is for five years, whereas the city cannot let one for more than one year.

MALONE, N. Y.—J. F. Wright, Malone, informs us that the proposed water power plant to be built By Messrs. Kilburn, Abbott & Wright will have a capacity for 80 2,000-c. p. arc and 2,000 16-c. p. incandescent lights. The plans are not far enough advanced for further information. The franchise was granted Oct. 24.

NEW YORK, N. Y.—Bids are asked until Nov. 7 for furnishing a plant for school building No. 17, Richmond. Address the building committee, board of education, 585 Broadway, Manhattan.

SKANEATELES, N. Y.—The question of building a municipal plant at a cost of about $30,000 is being considered, according to reports.

WHITESBORO, N. Y.—This place voted Oct. 24 to light the streets with 29 2,000-c. p. arc lights at a cost of $2,100 a year. The present company will make an addition to its plant at once.

CAMDEN, N. J.—The Citizens' Light, Heat & Power Co., 317 Market St., has applied for a franchise. A. Stewart Scull, Camden, may be addressed.

CAPE MAY CITY, N. J.—The question of the municipal ownership of the plant is being considered.

LANCASTER, PA.—Gustavus Groezinger has assigned the franchise for building a plant and the contract for lighting the city to the Lancaster Electric Plant, Heat & Power Co. The plant will cost about $100,000.

NEWTOWN, PA.—Bids are asked until Nov. 5 for lighting the streets for one year from Jan. 8, with privilege of renewing from year to year. Secy. Council, M. A. Buckman.

PHILADELPHIA, PA.—J. E. & A. L. Pennock, 305 Walnut St., have been let the contract to build the power house for the Commercial Museums in West Philadelphia. It is to be one story high, 60 × 224 ft., and will be built of rock face stone, and will cost about $50,000. Work will be begun in a few days.

WRIGHTSVILLE, PA.—It is stated that the Walter Bradley Co., Oswego, N. Y., has been awarded the contract for building a dam and excavating at Wrightsville, for the Martic Water & Power Co., at about $100,000. Ch. Engr., Jas. H. Harlow, Wrightsville.

ROANOKE, VA.—Estimates are reported as being received by C. L. Moses & Co. for a plant of 500 incandescent lights.

ASHBORO, N. C.—M. O. Hammond, Mayor, writes us that the city has no plant, but the board of commerce is in communication with a company in Norfolk, Va., with a view to putting in a plant. Pres. Bd. of Commerce, Jno. T. Moffitt.

DALTON, GA.—It is stated that this city is arranging for the construction of a plant and sewers to cost $30,000.

FORSYTH, GA.—The question of issuing $8,000 in bonds for a plant will be voted upon Nov. 26. Cy. Clk., W. A. Pye.

MILLEDGEVILLE, GA.—L. C. Hall, E. T. Alling, B. B. Adams, Jr., and T. J. Crowley are on the committee to investigate the question of a municipal plant. The council has refused to renew the contract with the Milledgeville Electric Light Co. The proposed plant will have a capacity for 50 arc and 1,000 incandescent lights. Mayor Horne may be addressed.

WOODLAWN, ALA.—Jno. T. Hood writes us that the town is considering the question of building a plant in connection with the proposed water-works. The works will cost about $25,000. Population, 3,200.

NEW ORLEANS, LA.—Councilman Felix J. Dreyfous writes us that the city will advertise for bids for lighting the upper districts (6 and 7) by electricity, gas or vaporized oil. Bids will probably be opened Feb. 2. The city is now paying $35,000 a year for lighting these districts. Conduits will be laid in the commercial portion of the city by the several wire companies within the next year.

FRANKLIN, KY.—The council is reported to have awarded the contract for public lighting to B. F. Gardner, Bowling Green, Ky.

BELLE CENTER, O.—The question of building a plant is being considered.

GIRARD, O.—Estimates are wanted for a plant for lighting this place; population, 3,000. Frank Pringle, Chn. Com.

WOODSFIELD, O.—T. A. Way, Mayor, writes us that it is proposed to build a plant for street lighting; estimated cost $7,000.

HUNTINGBURG, IND.—Information is being secured for a municipal plant of 500 incandescent and 35 arc light capacity. J. W. Schwartz, Mayor; Councilmen Henry Prior and Bretz are on the committee.

INDIANAPOLIS, IND.—Bids are asked until Dec. 8 for the lease for 30 years of the water power, etc., belonging to the Indianapolis Water Co., 113 Monument Place. F. A. W. Davis, Vice-Pres.

GRAND RAPIDS, MICH.—The Grand Rapids Electric Light and Power Co. propose to build a storage battery plant and make other changes to its plant. Jos. W. Spooner, Secy.

GRAND RAPIDS, MICH.—Geo. Lohman, Arch., has completed plans for the building for the municipal plant, the contract for which has been let to the Chase Construction Co., Detroit.

KALAMAZOO, MICH.—Press reports state as follows: Work on the construction of a dam on the Kalamazoo River by the Kalamazoo Valley Electric Co., has been begun, and construction will be completed by the middle of January. The dam proper will cost $125,000. It will be located about four miles southwest of here in Trowbridge township. It is estimated that about 13,500 HP. will be developed. Four water wheels will be put in. The company proposes to furnish both electric lighting and power, and it is probable that Allegan, Kalamazoo, Oswego, Plainwell and other towns will be lighted by the company. It is said that considerable of the machinery has already been purchased. H. C. Hoagland, Supt. Kalamazoo Electric Co., and J. D. Foote are interested.

CHICAGO, ILL.—Bids are asked until Nov. 9 for arc lamp repairs. Edward B. Ellicott, Cy. Electrician.

CLINTON, ILL.—Harry Swigart has been granted a 20-year franchise for a plant. Press reports state that bids will soon be asked by the council for lighting the city, the contract with the Clinton Electric Light Heat & Power Co. expiring in a few months.

EDWARDSVILLE, ILL.—Press reports state that the plant of the Edwardsville Electric Light & Power Co., which was destroyed by fire Oct. 24, will be rebuilt at once. The loss was $30,000. Dudley Pogul, Mgr.; C. H. Fischer, Pres.

ELBURN, ILL.—The question of building a plant in connection with the proposed water-works is being considered. Councilman A. W. Collins may be addressed.

LITCHFIELD, ILL.—The Decatur Light Co., Decatur, Ill., it is stated, is considering estimates for a plant for this place.

MORGAN PARK, ILL.—Bids were asked until Nov. 1 for building a power house for the water-works and the electric light plant. The building will be 50 × 66 ft. Arch., N. N. Waterman, 925, 218 La Salle St., Chicago; M. H. King, Pres. Bd. Local Improvements.

ROCK ISLAND, ILL.—Bids are asked by the city clerk until Nov. 7 for a combination system of high and low lights. There is to be one tower in each ward, and six lights on each tower, the tower to be at least 100 ft. high. The elevation of the low lights is to be 28 to 35 ft. Bids are asked for one-year, two-year and three-year contracts, and for lighting according to the Philadelphia schedule, or all night, the council to choose when the bids are opened.

COLUMBUS, WIS.—The question of building a private plant is being considered. Mayor Leitsch may give information.

GREEN BAY, WIS.—The city clerk writes us that bids were received Oct. 21 for building a plant, but up to a late date the contract had not been let.

FOUNTAIN CITY, WIS.—It is stated that H. & F. Roettiger have been granted a franchise.

MERRILL, WIS.—Plans are being prepared for rebuilding the burned plant of the Merrill Ry. & Light Co. The new plant will be larger than the old one, which cost $10,000. J. N. Cotter and E. S. King, of Merrill, and F. P. Hixon, of La Crosse, Wis., are interested.

DES MOINES, IA.—The Des Moines Edison Light Co. has increased its capital stock from $130,000 to $450,000. Plans are prepared for the improvement of the water power plant at Center St., where a building is being constructed. It will be equipped with water wheels. R. H. Frazer, Supt.

CLARENCE, MO.—It is stated that this place has voted to issue $5,000 in bonds for a plant.

INDEPENDENCE, MO.—W. T. Felton, of Kansas city, Mo., has applied for a 20-year franchise for a plant.

SARCOXIE, MO.—This place has voted to grant a franchise for a plant to the Sarcoxie Electric Co.

SENECA, MO.—The question of building a plant is being considered, according to reports. J. E. Schreiner may be addressed.

ARKADELPHIA, ARK.—The Brown Electric & Machinery Co., Little Rock, Ark., has been awarded the contract for a plant for the Arkadelphia Lumber Co.'s mills.

WYNNE, ARK.—Bids are asked until Nov. 10 for furnishing the materials and for building a plant and water works (postponed from Nov. 8). Engr., Owen Ford, Security Bldg., St. Louis; Chn. Com., W. M. Kennedy.

HOUSTON, TEX.—L. J. Luffly, Chn., writes us that the committee has selected the site for the proposed municipal plant to cost about $100,000. Up to Oct. 26 no engineer had been engaged.

BUTTE CITY, MONT.—Judge Lindsay has ordered Fred. J. Sterling, Missoula, Mont., Receiver Montana Power Co., to proceed to repair the Big Hole dam at a cost of about $67,000, in order to preserve the property. It is said that $470,000 has so far been spent on building the power plant. The expenses of all the necessary work is placed as follows: Repairing dam, $31,000; drain tunnel, $7,500; penstock and gates, $12,500; Wise River dam, $8,000; power house, $8,000; total, $67,000.

DENVER, COLO.—Press reports state that the construction of a part of the plant of the Denver Power & Irrigation Co. has been begun by building the reservoir on the Platte River. This reservoir will cost about $1,000,000. The entire plant and system will cost about $3,000,000. Alderman Robt. M. Golder has introduced an ordinance authorizing the granting of the franchise. Jas. E. Rhodes and Walter Rhodes, of Denver, are interested.

LEADVILLE, COLO.—Dr. M. J. Rickoff, London, England, will submit a report to an English syndicate in regard to the construction of a power plant at Malta, the power to be secured from the Lake Park reservoir. T. W. Jaycox, R. E. Goodell and Dr. Law may give information.

COLFAX, WASH.—Fanning & Brown are considering the cost of a plant for this place.

REDLANDS, CAL.—It is stated that F. C. Finkle, Engr. Electric Light & Power Co., is making surveys for extending the plant at Mill Creek.

MAGOG, QUE.—The question of issuing $10,000 in bonds for a plant will probably soon be voted upon, according to reports.

ACTON, ONT.—It is stated that this place will soon vote on the question of building a plant.

BOTHWELL, ONT.—This place is reported to have voted to issue $4,000 in bonds for a plant.

BRADFORD, ONT.—This place is considering the question of putting in a plant.

HAMILTON, ONT.—Percy Domville, Hamilton, has submitted his report on the proposed municipal plant. Estimated cost, from $40,516 to $97,130.

ST. THOMAS, ONT.—J. A. Bell, Cy. Engr., is reported as preparing plans for a municipal plant.

THOROLD, ONT.—An election will be held in January to vote on the question of building a plant to cost about $7,000, according to reports.

WINNIPEG, MAN.—The question of building a municipal plant is being considered by the council. Aldermen Bell, Chn., Mitchell and Martin are on the committee.

ROSSLAND, B. C.—The council has accepted the offer of the West Kootenay Power & Light Co. to provide five arc lights to be used in the city at a cost of $96 a year.

JAPAN.—The New York "Journal of Commerce" states that Shizuo Kondo, Pres. Japan-American Commercial & Industrial Association, Times Building, New York, has received data from Japan regarding the construction of new power plants wherein American machinery may be installed provided the manufacturers here take steps toward getting the work. There are at present but two electric railways in operation in Japan. They are the Kioto Electric Ry. Co., with a capital of 3,000,000 yen, and the Nagaya Electric Ry. Co., with 250,000 yen as capital. Both of these roads are earning good dividends, and consequently have proved quite an incentive toward the construction of other roads. Abundant waterfalls furnish additional inducements, and there are at present either in course of construction or in contemplation 27 new roads, of which but 10 will require steam plants. There are also in course of construction 31 electric light stations, of which 21 will receive their power from waterfalls. There are 17 water-power plants about to be built for manufacturing purposes and three steam plants. Mr. Kondo has the names and commercial standing of the concerns who are building these plants.

NEW COMPANIES.—Dundas Electric Co., Ltd., Dundas, Ont.; $40,000; Geo. H. Harper, R. T. Wilson, Jas J. Grafton, John Bertram.

Sutton-Steele Electrical Co., Dallas, Tex.; $20,000; Walter L. Steele, Henry M. Sutton, Emmett A. Ellis, J. L. Sale.

Kansas Gas, Water & Electric Light Association, Topeka, Kan.; for mutual protection and benefit; Pres., L. T. Palmer, Leavenworth; First Vice-Pres., E. Willis, Atchison; Second Vice-Pres., A. T. Rogers, Beloit; Secy. and Treas., Jas. H. Foley, Leavenworth.

Electric Heat & Power Co., Chicago, Ill.; $5,000; Chas. B. Coffeen, Alvah S. Hopkins, Howard B. Cook.

Edison Junior Electric Light & Power Co., New York; $100, with the privilege of increasing the same to $500,000; Thos. A. Edison, Jr., Valentine Robinson, H. C. Hepburn, E. A. Drake, C. S. Henry, R. M. Jordan, J. G. Batterson, Jr., F. J. Stone, New York city.

Tonawanda Cataract Power Co., North Tonawanda, N.Y.; $100,000; to distribute electricity for light, heat or power within Wheatfield, North Tonawanda, Niagara county, and Tonawanda, Erie county; Chas. A. Sweet, 1040 Delaware Ave.; Lincoln A. Grow, Buffalo; Edwd. D. Adams, Francis Lynde Stetson, Edward A. Wickes, William B. Rankine, Engr., Mills Bldg., New York.

Warsaw Electric Co., Warsaw, Ind.; $30,000; Noah J. Clodfelter, A. T. Spencer, Chas. J. Lohman, J. C. Hamilton, Monroe George.

Montezuma & Oglethorpe Light Co., Montezuma, Ga.; $3,000; Jule Felton, V. O. Brown.

South McAllister Electric Light Co., South McAllister, Ark.; $25,000; Pres., L. J. Graham.

BRIDGES.

BOSTON, MASS.—The following bids were received Oct. 27 for constructing the draw foundation and drawfender piers of the new bridge on Summer St. extension. William Jackson, Cy. Engr.: William L. Miller and William N. Ellis, $38,896; John Cavanagh & Co., $46,400; William H. Keyes & Co., $44,960; J. N. Hayes & Co., $52,000; William J. Lawlor, $33,460; Ross & Fowler, $51,000.

ASHTON, R. I.—An iron bridge, to cost about $10,000, is to be constructed over the Blackstone River, to connect Lincoln and Cumberland. Chas. N. Robertson, Chn., Lincoln, and Dennis Shea, Secy., Cumberland, of the committee. John E. Judson, Engr., Pawtucket, R. I.

BUFFALO, N. Y.—A hearing will be given Nov. 15 by the park board, the authorities of West Seneca and the Buffalo, Rochester & Pittsburg R. R. Co., to consider a proposition to change the grade crossing at the Ridge Road to an overhead crossing, to cost about $6,000.

LEYDEN, N. Y.—The towns of Lyonsdale and Leyden have voted to build a new iron bridge across Black River, according to reports.

CHESTER, PA.—A bridge will be constructed at Lloyd St. by the Philadelphia, Wilmington & Baltimore R. R. Co.

WASHINGTON, D. C.—Bids are asked until Nov. 22 for constructing foundations for bridges across Rock Creek on the lines of Massachusetts and Connecticut Aves. extension, as stated in our advertising columns. Address the District Commissioners.——Plans and estimates have been submitted by the engineering department for the proposed memorial bridge across the Potomac River, with masonry piers and steel superstructure, of three fixed spans and one draw span, 60 ft. wide, and with approaches, estimated cost, $1,385,000; for a bridge over the eastern branch of the Potomac River, in line with Massachusetts Ave., having a total length of 2,517 ft. and 52 ft. wide; estimated cost, $441,208; with swing span on pivot pier, $476,843; for a stone arch bridge over Rock Creek, on Massachusetts Ave., estimated cost, $568,545, or for a steel bridge, $199,204.

CUMBERLAND, MD.—A bridge on the Pittsburg division of the Baltimore & Ohio R. R., over Wills' Creek, has been destroyed.

SAVANNAH, GA.—Bids are asked until Nov. 10 for constructing steel and iron bridges, according to reports. Jas. W. McIntyre, County Clk.

NASHVILLE, TENN.—Bids are asked by the council until 3 p. m., Nov. 3, for constructing the substructure of the Broad and Church Sts. viaducts. The bids received Oct. 25 were rejected; they ranged from $18,000 to $26,000.——W. M. Leftwich, Jr., Cy. Engr., informs us that the following bids were received Oct. 25 for the approaches of the Broad and Church Sts. viaducts, advertised in Engineering News, Oct. 13:

Groton Bridge & Mfg. Co., Groton, N. Y.	$32,345
Virginia Bridge & Iron Co., Richmond, Va.	36,325
King Bridge Co., Cleveland, O.	46,820
Indiana Bridge Co., Muncie, Ind.	43,820
Geo. E. King Bridge Co., Des Moines, Ia.	38,000
Youngstown Bridge Co., Youngstown, O.	34,449
Gude & Walker, Atlanta, Ga.	34,975
Louisville Bridge & Iron Co., Louisville, Ky.	43,248

CANAL FULTON, O.—Bids are asked until Nov. 15 for constructing a bridge, 131 ft. long and 32 ft. wide, capacity 150 lbs. per sq. ft., over the Tuscarawas River. Wm. M. Reed, County Audr., Canton, O.

CLEVELAND, O.—Plans are being prepared and bids will soon be asked for the superstructure of the Center St. bridge, over Cuyahoga River, to cost about $130,000. M. E. Rawson, Ch. Cy. Engr.

COLUMBUS, O.—Henry Maetzel, County Surveyor, has reported to the county commissioners that a number of steel and iron bridges are in need of immediate repair.

LORAIN, O.—Bids are asked until Dec. 22 for furnishing plans and for constructing the superstructure of either a swing or lift bridge over the Black River; estimated cost, $150,000. Osborne Co., Engrs., Osborne Bldg., Cleveland, O.

EAU CLAIRE, WIS.—A contract was awarded Oct. 28 to the Milwaukee Bridge & Iron Works, Milwaukee, Wis., at $26,175, for building the superstructure only and taking down the old bridge at Kelsey St. T. P. Cochrane, Cy. Clk.

WAVERLEY, IA.—Bids are asked by the county supervisors until Nov. 14 for a bridge over Cedar River, according to reports.

DULUTH, MINN.—R. E. McFarlane, 1811 West First St., informs us that plans have been prepared for the proposed steel bridge at Garfield Ave. E. J. Duffies, Des. Engr., City Hall, Duluth.

SEATTLE, WASH.—Bids are asked until 2 p. m. Nov. 7, for furnishing the material and constructing a combination truss bridge across Green River and approaches. E. H. Evenson, County Clk.

CORNING, CAL.—Reports state that a bridge 200 ft. long, will be constructed over Thomas Creek. W. F. Lunning, County Surveyor, Red Bluff, Cal.

TILBURY, ONT.—Bids are asked until 12 m., Nov. 4, for furnishing the material and constructing two steel highway bridges, over Big Creek, in Tilbury West township. Wm. Newman, Engr., Windsor, Ont., or Thos. Anderson, Comber, Ont., may be addressed.

BUILDINGS.

BRISTOL, VT.—A fire in the Union Block, on Main St., Oct. 26, caused damage estimated at $50,000.

HAVERHILL, MASS.—Two 4-story buildings, owned respectively by Herbert B. Newton and C. H. Tarleton, were destroyed by fire Oct. 27, causing a loss of about $50,000.

NATICK, MASS.—W. L. Bullard, E. W. Marsden and others have been appointed as a committee to erect a new library building in this town, to cost about $30,000.

ALBANY, N. Y.—The board of aldermen has passed an ordinance providing for the erection of a $30,000 public bath at 665 Broadway.

AMSTERDAM, N. Y.—A fire in this city, Oct. 23, destroyed the clothing store of Suri & Wilkie, on East Main St., causing a loss of about $50,000.

BINGHAMTON, N. Y.—Contracts have been awarded by the Binghamton State Hospital, subject to the approval of the State lunacy commission, as follows: For the general reconstruction of the north building, Ford Brothers, of Oswego, N. Y., $19,400; steam heating and ventilating, Gaylord & Eitapence, Binghamton, $10,900; electric light wiring, Gaylord & Eitapence Electric Co., $1,495; plumbing, D. J. Malane, Binghamton, $1,794.

BROOKLYN, N. Y.—Bids are asked by the department of public buildings, etc., 346 Broadway, New York, until Nov. 10, for certain repairs and alterations to the municipal building of the Borough of Brooklyn, City of New York.

BROOKLYN, N. Y.—We are informed that Eugene Lentilhorn, 11 Broadway, New York, was the lowest bidder for the erection of a steel store house at the Navy Yard, at $38,500, and not Cooper & Wiegand, 1133 Broadway, as stated in our last issue. The contract has been awarded to Mr. Lentilhorn, on revised plans, at $30,000.——Plans are being prepared, according to reports, for twenty-five 2-story brick dwellings, to be erected on 50th St., near 5th Ave., by Charles Hamilton, 271 57th St., at a cost of about $150,000. Arch., Thomas Bennett, 1267 3d Ave.——The contract for erecting a 4-story brick and stone apartment building in Flatbush for M. L. Hamilton, has been let to C. F. Bond, 136 Liberty St., New York, at about $34,000. Arch., J. J. Petit, 186 Remsen St., Brooklyn.

BUFFALO, N. Y.—Bids are asked by the department of public works, until Nov. 9, for the erection of a 20-room school building in District No. 16, on Delaware Ave., near Bryant St. (work to be begun May 1); also for the erection of a 24-room school building in District No. 19, at Delavan and West Aves. (work to be begun May 1). Secy., R. G. Parsons.

NEW YORK, N. Y.—It is reported that an 8-story office and theatre building will be erected at 29th St. and Broadway next May by Weber & Fields.——Plans have been filed by Frederick Haas, 514 East 162d St., for six 5-story brick tenement buildings, at 149th St. and Amsterdam Ave., to cost $95,000. Arch., W. O. Tait, 1236 Madison Ave.; by Mary McNamee, 217 West 125th St., for seven 5-story brick flat buildings, on 139th St., near St. Ann's Ave., to cost $202,000. Arch., John C. Burne, 101 West 42d St.; by Henry Miller, 100 Broadway, for an 8-story brick store and loft building, on 13th St., near West Broadway, to cost $90,000. Arch., Henri Fouchaux, 162d St. and 11th Ave.; by Ellen Eden, 403 St. Nicholas Ave., for eight 5-story brick flat buildings, on 183d St., near 12th Ave., to cost $160,000. Arch., A. Spence, 56 West 135th St.; by Samuel Russell, 458 East 169th St., for four 5-story brick flat buildings, at 100th St. and Park Ave., to cost $88,000. Arch., Thomas Graham, 1231 Madison Ave.; by Marasco & Abbate, 8 Spring St., for two 6-story brick flat and store buildings, at 164 and 166 Elizabeth St., to cost $80,000. Arch., A. G. Rechlin, 722 3d Ave.; by Peter Talbot, 828 St. Nicholas Ave., for four 5-story brick flat buildings, on 163d St., near Amsterdam Ave., to cost $92,000. Arch., Henry Anderson, 1,180 Broadway.

SYRACUSE, N. Y.—The supervisors' special penitentiary committee has received bids from the following for the construction of a new county jail and penitentiary: M. D. Makepeace, The Van Dorn Iron Works, Champion Iron Works, Preston B. Seaman, Jeffrey & Umbrecht, Merrick & Randall, and M. C. Conway. The cost of the work will be about $175,000.

SYRACUSE, N. Y.—Bids were received by the board of education, Oct. 26, for supplying the heating and ventilating apparatus for the proposed Washington Irving school building. The Northcott Warming & Ventilating Co. was the lowest bidder, at $1,300, for the regular apparatus and $630 for closets, a total of $1,930. The other bidders were: The International Heater Co., $2,183, and the Peck-Williamson Heating & Ventilating Co., $2,400.

WARD'S ISLAND, N. Y.—Bids are asked by the Manhattan State Hospital, until Nov. 9, for erecting and finishing a detached building, also for warming, ventilation and hot-water supply, plumbing and drainage, and electric wiring and fixtures for said detached building at Ward's Island, New York. Hon. Henry E. Howland, Pres. Bd. of Mgrs., 1 Madison Ave., New York.

CAMDEN, N. J.—The following bids were received by the supervising architect, Washington, D. C., Oct. 27, for the construction (except heating and ventilating) of the U. S. building in this city, as advertised in Engineering News; a, marble; b, deducted for use of limestone; c, deducted for use of sandstone: Girard Construction Co., Philadelphia, a, $159,400, Lee marble; b, $25,500; c, $23,250; time, 15 mos. D. W. Thomas, Baltimore, Md., a, $171,500 South Dover or Beaver Dam; 20 mos. B. F. Sweeten & Son, Camden, a, $159,900, Lee; b, $23,000; c, $23,000; 15 mos. Roydhouse, Grey & Co., Philadelphia, a, $164,000, Proctor Vermont; b, $24,465; c, $26,000; 18 mos. Hyram A. Miller & Son, Philadelphia, a, $162,500, Lee; b, $23,000; c, $21,500; 1 yr. R. C. Ballinger & Co., Philadelphia, a, $164,750, Lee; b, $25,500; c, $23,250; 18 mos. William Steel & Son, Philadelphia, a, $160,653, Lee; b, $25,000; c, $23,000; 17 mos. Bennett & Rothrock, Williamsport, Pa., a, $158,000, Lee; b, $25,500; c, $23,250; 18 mos. M. P. Wells & Co., Philadelphia, a, $167,777, Lee; b, $25,815; c, $23,565; 11 mos; no check. Joseph J. Churchyard, Buffalo, N. Y., a, $167,374, Vermont; b, $23,000; 18 mos. P. J. Carlin & Co., Brooklyn, N. Y., a, $157,490, Beaver Dam or South Dover; b, $25,500; c, $23,250; 18 mos. John Gill & Sons, Cleveland, O., a, $159,400, Dover or Ashley, $163,750, Beaver Dam or Lee; b, $21,000; c, $21,000; 18 mos. Prescott, Buckley & Callman, Keeseville, N. Y., a, $176,740, West Rutland, Vt.; b, $26,390; c, $29,000; 18 mos. McIlvain, Unkerfer Co., Pittsburg, Pa., a, $160,690, Vermont Marble Co.; b, $21,500; c, $16,000; 14 mos. Charles McCall, Philadelphia, a, Adams Co., $149,975, Lee, $157,699; b, $23,649; c, $25,208.

MORRIS PLAINS, N. J.—Bids are asked until Nov. 10 for the construction of a stone boiler house and iron smokestack, at the New Jersey State Hospital, at this place. Arch., Robert C. Walsh Savings Bank Bldg., Morristown.

PASSAIC, N. J.—Bids are asked until Nov. 17, according to reports, for erecting an 8-room school building, to cost about $16,000. S. J. Post, Chn. of Com.

PATERSON, N. J.—Ackerman & Ross have been selected as architects for the new building for School No. 3, on Main St., to cost about $45,000.

CHAMBERSBURG, PA.—The trustees of Wilson College, Oct. 25, decided to erect a new $75,000 building. Pres., S. A. Martin, D. D.

BALTIMORE, MD.—George Mann has been awarded the contract for the erection of the new Northern police station, at $58,023.

CHARLESTON, S. C.—Plans are asked until Nov. 15 for an auditorium building, with a seating capacity of about 7,500 to cost not more than $20,000. Address the Auditorium Committee, Confederate Veteran Reunion, care of South Carolina Loan & Trust Co., Charleston.

ATLANTA, GA.—Bids are asked until Dec. 21 for erecting a 4-story brick and stone annex for the Fulton county court house, to be 116 × 156 ft. Arch., Grant Wilkins, 9½ Peachtree St.; Clk. of Comrs., A. L. Kontz, of Atlanta.

CHICAGO, ILL.—Reports state that the Edward Hillman Dry Goods Co., has secured a lease of the building at 112 to 116 State St., and that improvements will be made thereto, to cost about $40,000.——A permit has been granted to C. E. Bartley for the erection of an apartment building, 46 × 96 ft., at 4015 and 4017 Grand Boulevard, to cost $35,000. Arch., John Duncan.——Plans have been prepared for a 3-story school building for St. Francis' Roman Catholic Church, on St. Louis Ave., near Douglas Boulevard, to cost about $25,000. Archs., Burtar & Gassman, 1081 West 12th St.

PEORIA, ILL.—We are informed that the bids received for the construction of a steam tunnel for the Asylum for Incurable Insane, at Peoria, were those of the Crescent Stone Co., at $7,424, and Jobst Bros., at $6,800. Engr., Jacob A. Harman, Arcade Bldg., Peoria.

DULUTH, MINN.—Bids are being received, according to reports, for the erection of a freight station, 45 × 504 ft., for the Eastern Minnesota branch of the Great Northern Ry. N. D. Miller, Ch. Engr., St. Paul, Minn.

HENDERSON, COLO.—Bids are asked by the commissioners of Arapahoe county, at Denver, until Nov. 28, for the installation of a complete heating plant in the new county poor farm near Henderson. The contract for the erection of the buildings has been let to Frank Taylor, at $21,493.

CHEMAWA, ORE.—Bids are asked by the U. S. Indian Service, until Nov. 18, for building materials, including 66,500 ft. of assorted lumber, etc. Supt., Thos. W. Potter.

BOISE, IDAHO.—The following bids were received by the supervising architect, Washington, D. C., Oct. 27, for the foundations, etc., of the public building in this city: H. D. Mitchell & Co., $11,346; John S. Jellison, $9,800; Finnegan & Eastman, $8,244.

WATER-WORKS.

LAMOINE, ME.—The Lamoine Beach Water Co. has been incorporated with a capital stock of $5,000, of which $50 is paid in; H. E. Hamlin, Pres., Ellsworth, Me.; John A. Peters, treas., Ellsworth.

BERLIN, VT.—The council of Montpelier has asked for permission from the legislature to furnish this place with water. Another bill is also before the legislature authorizing the incorporation of the Berlin Aqueduct Co., which proposes to build works; capital stock, $40,000.

HAMPTON, N. H.—Chas. M. Lamprey, Clk., writes us that parties in Boston are making arrangements to make a survey for the proposed works, with a view to making an offer for constructing the works. The water supply will be secured from springs.

BOSTON, MASS.—Bids are asked until Nov. 14 for repairing the pumping engines at the station, Calf Pasture, Dorchester; check, $1,000. E. D. Leavitt, Mech. Engr., 2 Central Square, Cambridgeport, Mass.; Benj. W. Wells, Supt. Sts.

SWAMPSCOTT, MASS.—M. D. Porter, Town Clk., writes us that no contracts will be let for changing the source of water supply to the Metropolitan water-works. The pipe is already laid and only connections are to be made. The town voted Oct. 24 to secure water from the Metropolitan works.

PROVIDENCE, R. I.—The question of a filtration plant at the water-works is being investigated.

HARTFORD, CONN.—A new reservoir is to be built in Granby for the Hartford works. Jno. S. Hunter, Pres.

ALDEN, N. Y.—Reports state that Jacobs & Co., Bellaire, O., have been awarded the contract for building the works, at $14,323. The contract for the brick power house has been let to Wm. Witty, of Alden. J. F. Witmer, Engr., Buffalo, N. Y.

BAINBRIDGE, N. Y.—J. C. Scott, Clk., writes us that the following contracts have been let for furnishing the materials and for building the works: Chas. Millar & Son, Utica, N. Y., pipe and special castings; Lewis & Birdseye, Herkimer, N. Y., labor; Eddy Valve Co., Waterford, N. Y., valves, etc. The water will be supplied by gravity from a creek; estimated cost of works, $22,000. The contract for building the reservoir was not let up to Oct. 27. J. Warren Lamb, Des. Engr., Cooperstown, N. Y. Bids for the purchase of $22,000 of water-works bonds are asked by the trustees until Nov. 19.

LEWISTON, N. Y.—The trustees have granted J. Boardman Scovell and others a right to organize a company and supply the village with water. The supply will probably be taken from the lower Niagara River.

NIAGARA FALLS, N. Y.—City Engineer Jones has submitted to the board an estimate for laying a 6-in. main, to cost about $3,600.

ORCHARD PARK, N. Y.—It is stated that Dr. Frank P. Vandenbergh, Erie County Bank Bldg., Buffalo, and others are interested in the proposed works, for which a franchise was recently granted.

VALLEY STREAM, N. Y.—It is stated that the Valley Stream Water Co. is to be organized to supply this place and Lynbrook with water. E. Delavan Smalley, Engr., Syracuse, N. Y., is interested.

WINDSOR, N. Y.—T. N. Furman, village pres., writes us that the contracts for building the new works, voted for in August, will be let about May 1. The water will be secured from springs 1¼ miles distant. There will be about six miles of pipe, a reservoir 30 × 100 ft., etc. Up to Oct. 26 the engineer had not been selected. Population 800.

HIGHBRIDGE, N. J.—The council is reported to have decided to build works, for which estimates are being prepared; estimated cost, $12,000. H. Latimer, Clk.

MILFORD, N. J.—The Spring Mills Water Co. has been incorporated to construct and maintain water-works; capital stock, $55,000; incorporators, Michael T. Lynch and H. T. Wuchter, of Phillipsburg, N. J.; J. William Flad and E. W. Evans, of Easton, Pa.

PENNGROVE, N. J.—The question of building works is being considered, according to reports.

DOYLESTOWN, PA.—Bids are asked by the water committee until Nov. 7 for a wooden or metal covering for the water-works basin. The question of securing an increased water supply is being considered. The committee will probably sink test wells. Councilman Wilson, Chn. Com.

NEW KENSINGTON, PA.—The National Foundry & Pipe Works, Scottsdale, Pa., has been awarded the contract for furnishing 39,000 ft. of cast iron water pipe. The contract for laying the pipe has been let to Chandley Bros. & Co., Beaver Falls, Pa. These improvements to the works will cost about $25,000.

BALTIMORE, MD.—We are informed that Clendennin Bros., 111 South Gay St., have been awarded the contract for furnishing such pig lead as may be required, in all about 150 tons, at about $11,000.

DENTON, MD.—Harry A. Roe, Howard Melvin, and Jas. H. Nichols have applied for a franchise for works to cost about $8,000.

NORFOLK, VA.—Press reports state that the water board opened bids Oct. 26 for constructing dams, waste wier and canals in the utilization of the Little Creek addition to the water supply. The lowest bid, that of John Lavelle, of Cleveland, O., at $105,000, work to be completed within seven months, will probably be accepted. The water board is also considering the question of filtration, for which it is estimated that it will require about $50,000 to begin the work. H. L. Smith, Supt.

KEYSTONE, W. VA.—Bids are wanted within 90 days by R. Elsinger, Chn. Com. for building works, to cost about $2,500. J. K. F. Steele, Recdr.

WASHINGTON, GA.—It is stated that the council is again considering the question of issuing bonds for the proposed works, estimated to cost $5,000.

SUMMIT, MISS.—We are informed that the contract for building the works has been let to P. H. Porter, Columbia Bldg., Louisville, Ky. The itemized bids are given under Contract Prices. Alber & Byrne, Engrs., 1821 Second Ave., Birmingham, Ala.

WOODLAWN, ALA.—Jno. T. Hood writes us that the works will cost about $25,000. Population, 3,200.

McCOMB CITY, MISS.—Bids are asked until Nov. 17 for building works to cost about $40,000. Sanders & Porter, Engrs., Columbia Bldg., Louisville, Ky.; J. D. Harrell, Cy. Clk.

GEORGETOWN, KY.—At the election Nov. 8 this place will vote on the question of issuing $12,000 in bonds for municipal works, according to reports. N. H. Sinclair, Mayor.

WEST COVINGTON, KY.—Arrangements are reported as being made by a company to build works at once. Mayor Moser may give information.

BEREA, O.—T. J. Quay, Mayor, writes us that the town will vote at the next election on the question of issuing $30,000 in bonds for works. No plans have yet been prepared. Population, 3,000.

CINCINNATI, O.—Bids are asked until No. 9 for laying water pipe on Baltimore Ave. G. H. Spellmire, Clk. Bd.

IRONTON, O.—The council has appointed a committee to consider the question of putting in a filtration plant.

ZANESVILLE, O.—The water trustees have been asked by the Harris Brick Co. to extend the water mains for better fire protection. Frank Myers, Secy. water-works trustees.

FORT WAYNE, IND.—The following bids were received by the trustees Oct. 20 for furnishing a new pump: Holly Mfg. Co., $20,500, 18 × 32 × 24 × 32—110 million duty; Henry R. Worthington, $22,660, 18 × 36 × 22 × 36—115 million duty; $16,580, 13 × 21 × 34 × 22 × 36—100 million duty; Blake Mfg. Co., $21,555, 18 × 36 × 16 × 36—110 million duty; $16,310, 11 × 19 × 33 × 22 × 36—75 million duty; $12,796, 15 × 30 × 22 × 36—60 million duty.

CHEBOYGAN, MICH.—At the election Nov. 8 this place will vote on the question of issuing $7,000 in bonds for extending the works.

DETROIT, MICH.—The matter of securing a pure water supply for Detroit, and all the other cities that can be reached by tunnel from Lake Huron for a distance of 60 miles, has been referred by the state board of health to a committee. Benj. F. Bush, Grand Blanc, Mich., is preparing maps and estimates. An enabling act will have to be passed by the legislature, which meets in January, to establish a sanitary district.

TRAVERSE CITY, MICH.—Mayor Smith has appointed Perry Hannah, H. S. Hull and Alderman Lardie a committee to take active steps towards securing the proposed municipal works.

CHICAGO, ILL.—Bids are asked until 3:30 p. m., Nov. 4, for laying water pipe in a number of streets.

ELBURN, ILL.—Bids are asked until Nov. 15 for sinking a 10-in. well about 200 or 300 ft. for a water supply. H. D. Hallet, Engr., 108 Grand Ave., Aurora, Ill.; A. W. Collins, Chn. Water-Wks. Com.

MELROSE PARK, ILL.—The contract for building the works has been let to Isharg, Miller & Co., at $45,000. W. B. Ewing, Engr., Marquette Bldg., Chicago; Wm. Leeseberg, Clk.

MILLEDGEVILLE, ILL.—The contract for building works has been let to J. L. White, of Chicago. The pump, tanks and engine will cost about $4,000, and the two miles of piping and laying will cost about $4,000. This also includes 25 hydrants.

APPLETON, WIS.—Herman Erb is reported to have been appointed receiver for the Appleton Water-Works Co.

IRETON, IA.—Allen & Co., Hawarden, Ia., have been awarded the contract for works for this place, at $5,500.

KENWOOD PARK, IA.—At the election, Nov. 8, this place will vote on the question of granting a 25-year franchise for works to the Kenwood Park Water & Light Co.

BURLINGAME, KAN.—Preliminary surveys for works to cost $20,000 have been made by H. V. Hinckley Topeka.

MANKATO, KAN.—The question of building municipal works, to cost about $21,000, is being considered. H. V. Hinckley, Engr., Topeka.

ST. MARYS, KAN.—H. V. Hinckley, Topeka, Kan., has made surveys, etc., for works, to cost $28,000.

WAMEGO, KAN.—An election will be held Nov. 15 to vote on the question of issuing $25,000 in bonds for the proposed works. H. V. Hinckley, Engr., Topeka; F. S. Haacke, Cy. Clk.

FORT BERTHOLD, N. DAK.—Bids are asked until Nov. 29 for constructing works at the Indian Agency here. Address the U. S. Indian Warehouse, 1602 State St., Chicago, Ill., or the Commissioner of Indian Affairs, Washington.

MARYVILLE, MO.—The question of the municipal ownership of the works of the Maryville Water Co. is being considered, according to reports.

TEXARKANA, ARK.—Press reports state that a number of improvements will be made to the works of the Water Co. of Texarkana, including a 30,000,000-gallon reservoir, etc. R. A. Munson, Supt.; Wm. M. Paul, Pres., Moorestown, N. J.

WYNNE, ARK.—Bids are asked until Nov. 10 for furnishing the materials and for building the works. (Postponement from Nov. 8, on account of election.) Owen Ford, Engr., Security Bldg., St. Louis, Mo.; Wm. McKennedy, Chn. Bd.

FLORENCE, COLO.—Bids are asked until Nov. 28 for furnishing the materials and for building works, as described in our advertising columns. Hiram Phillips, Des. Engr., 306 Oriel Bldg., St. Louis, Mo.; P. T. McGuire, Mayor.

DALLAS, ORE.—It is stated that this place has voted to issue $25,000 in bonds for works.

BREMERTON, WASH.—The following were the only bids received Oct. 22 by the bureau of yards and docks, Washington, D. C., for extending the works at the naval station: Taylor & Youngs, Seattle, Wash., $3,987, and Pacific Heat & Power Co., Seattle, $3,668.

ANAHEIM, CAL.—E. A. Honey, Orange, Cal., is reported to have purchased the works of this place, owned by the A. T. & S. Fe Ry. Co., and will at once improve it.

SANTA BARBARA, CAL.—The city engineer is making surveys for a 5,000,000-gallon reservoir, to cost about $7,000, according to reports.

OAKLAND, CAL.—Bids are asked by the supervisor until Nov. 7 for laying water pipe in Dacoto township.

PASADENA, CAL.—The Pasadena & Lake Vineyard Water Co. has decided to build a cover to Reservoir No. 2, at a cost of about $7,000.——The Pasqual Land & Water Co. has been incorporated.

SACRAMENTO, CAL.—City Tapper Watts has estimated the cost of constructing the proposed additional water mains at $95,000. Engineer Wolf estimates that a vertical triplicate pumping engine, incidental to the proposed new water mains, will cost about $30,700. The corporation counsel has been instructed to prepare an ordinance embodying the proposition calling for an election to vote on the issuing of bonds for the construction of a sewerage system, for a high school and for improving the water-works at the next regular meeting of the board.

SAN LUIS OBISPO, CAL.—J. A. Gardish, Cy. Clk., writes us that the city is negotiating for the purchase of the works of the San Luis Obispo Water Co.

SAN MATEO, CAL.—R. H. Jurg, Cy. Clk., writes us that the proposition to issue $80,000 in bonds for works failed to receive the two-thirds vote at the election Oct. 22.

WHITTIER, CAL.—An election will be held Nov. 22 to vote on the question of issuing $40,000 of 5% bonds for improving the works, noted last week. W. B Butler, Cy. Clk.

SALT LAKE CITY, UTAH.—A. A. Robertson writes us that F. C. Kelsey, Cy. Engr., is making investigations for a better water supply. Nothing will be done until he makes his report, which is not likely to be submitted for six months.

COALVILLE, UTAH.—This place voted Oct. 24 against issuing $8,000 in bonds for works.

GANANOQUE, ONT.—Geo. Taylor, M. P., writes us that the town has works for fire protection. This place wants complete works, to cost about $60,000. It prefers to build its own works, but may decide to grant a franchise for both water and electric lighting. The question is only being considered at present. Population, 1,000.

ROSSLAND, B. C.—The question of securing works and a light plant, to cost about $85,000, is still being considered, according to reports.

VANCOUVER, B. C.—T. H. Tracy, Cy. Engr., has submitted estimates for improving the works, as follows: A new flexible jointed main across the narrows, to cost about $8,000; 300 tons of iron pipe, for general extensions throughout the city, $12,000; new 22-in. main on the north side of the Narrows, as far as the rock tunnel, $50,000; hydrants and miscellaneous supplies, $3,000; total cost, $83,000.

BILLINGS BRIDGE, ONT.—James Perry, Contractor, has submitted a proposition to build works and a light plant for this place and Ottawa East.

SEWERAGE.

SOUTHBRIDGE, MASS.—Local papers state that the city will soon adopt plans for the proposed sewerage system and sewage disposal. C. W. Hill, Clk. Com., and Selectman J. M. Olney may be addressed.

BUFFALO, N. Y.—R. E. Parsons, Secy. Bd. Pub. Wks., writes us that the following bids were received Oct. 20 for building a brick sewer in Bryant St. and Ashland Ave.: W. G. Smith, $3,793; F. J. Martin, $4,970; Geo. Parks & Sons, $5,150; L. Ritzman, $4,444; John Harrer, $5,000; Henry Harter, $4,271; Andrew Beaser, $4,217, and Wm. Franklin, Jr., $3,950.

FISHKILL LANDING, N. Y.—D. S. Merritt, Tarrytown, N. Y., is preparing plans for a separate system for this place. C. E. Spraight, trustee, may be addressed.

KINGSTON, N. Y.—The borough engineer has submitted specifications for a system. Councilmen Reynolds, Shepheard and Lynn may be addressed.

NEW YORK, N. Y.—Bids are asked until Nov. 16 for rebuilding sewers in Ward No. 3 (Jamaica) Queens. Jas. Kane, Comr. of Sewers, 265 Broadway, Manhattan.

PATCHOGUE (L. I.), N. Y.—We are informed that bids will be opened in the first week of November for constructing 1,050 ft. of 18 to 12-in. storm water pipe sewer; average cut, 7 ft. Emmett F. Smith, Engr., Patchogue; J. M. Pierce, Village Pres.

ROCHESTER, N. Y.—It is proposed to build sewers in several streets, at a cost of about $63,000. Peter Sheridan, Cy. Clk.

TROY, N. Y.—Bids are asked until Nov. 11 for constructing pipe sewers in two streets. E. O. Ross, Secy. Contracting Bd

PLAINFIELD, N. J.—We are informed that ordinances for 1,140 ft. of 24-in. storm pipe sewers will be passed within a month; average cut, 10 ft.; estimated cost, $2,200. Andrew J. Gavett, Engr. and Comr.; E. T. Barrows, Chn. Com.

SOUTH ORANGE, N. J.—The joint sewerage committee held a meeting Oct. 26, when a report was received from Alex. Potter, Engr., 137 Broadway, New York, in which he submitted the following figures showing what the cost would be to each of the municipalities interested in the joint outlet sewer to Staten Island Sound: South Orange village, $44,672; South Orange township, $21,824; Irvington, $28,220; Milburn, $21,764; West Orange, $56,834; Newark, $29,319; Vailsburg, $21,941. It is stated that the work will be pushed forward as rapidly as possible. It will be necessary for West Orange and South Orange townships and Milburn to take a vote on the question before the municipalities can legally do anything. South Orange village, Irvington, Vailsburg and Newark are practically ready to go on with the improvement.

NORTH BRADDOCK, PA.—The question of building the system, now partly constructed, wholly independent of Braddock, without using the main of Braddock as outlets, for a proper consideration; or, whether mains shall be extended for several miles to get around Braddock to its eastern and western limits, is now being considered.

GROVE CITY, PA.—Owens & Robinson, Meadville, Pa., have been awarded the contract for building sewers in this place.

WASHINGTON, D. C.—Bids are asked by the district commissioners until Dec. 10 for constructing the northerly portion of the Tiber Creek and New Jersey Ave. high-level intercepting sewer, as stated in our advertising columns.

SALISBURY, N. C.—The South Main Sewer Co. has been incorporated with a capital stock of $2,000 by D. L. Gaskill, W. C. Coughenour and O. D. Davis.

MOBILE, ALA.—The contract for building the system has been let to T. J. Shea, of Quincy, Ill., at $186,273. T. W. Nicol, Supervising Engr., informs us that the following are the total bids for the work, the bids being received Oct. 17; the work will be through sand and clay, and the average cut will be 5 ft.:

J. B. Neely & Co., Chattanooga, Tenn.	$216,644
T. J. Shea, Quincy, Ill	186,273
Greenville Con. Co., Greenville, O.	193,200
Dowdle & Dungan, Chicago, Ill.	234,161
Van Sandt & Meeds, Cincinnati, O.	316,817
Guild & Co., Chattanooga, Tenn.	277,645
M. T. Lewman & Co., Louisville, Ky.	285,506

NEW ORLEANS, LA.—Councilman F. J. Dreyfous writes us that the city wants bids for building a system on the basis of so much for each connection.

YOUNGSTOWN, O.—The question of making improvements to the sewers in certain streets is being considered.

EVANSVILLE, IND.—Bids are asked until Nov. 19 for constructing local sewers in certain streets. George W. Swearingen, Clk. Bd. Pub. Wks.

SHERIDAN, IND.—Bids are asked until Nov. 7, for building sewers. W. E. Clements, Town Clk.

SOUTH BEND, IND.—Bids are asked until Nov. 28 for constructing certain sewers. L. A. Hull, Cy. Clk.

DETROIT, MICH.—Bids are asked until Nov. 7 for constructing certain pipe sewers. D. W. H. Moreland, Pres. Bd. Pub. Wks.

LAKE LINDEN, MICH.—The question of issuing bonds for a system will soon be voted upon, according to reports.

PEORIA, ILL.—We are informed that the following bids were received Oct. 27 for sewers for the Illinois asylum for the incurable insane: John Woods & Co., 514 Weber St., Peoria—Plan No. 1, $1,763; plan No. 2, $3,109; plan No. 3, $4,339; and Crescent Stone Co., Peoria—Plan No. 1, $1,935; plan No. 2, $3,205; plan No. 3, $5,488.

MADISON, WIS.—The Reichert Construction Co., Racine, Wis., has been awarded the contract for building sewers in the Livingston and Lake St. districts at $9,050. The other bidders were as follows: Harding & Nelson, Racine $9,380; Fetter & Crosby, $12,938; Nicholas Quinn, $10,373; Gottfried Moery, $12,550. Plans and specifications for the com-

pletion of the sewage disposal plant—the building, machinery, etc.—have been submitted by Engineers Dodge and Nader. It is proposed to put the plant in operation Jan. 1. John Corscot, Sewerage Comr.

ST. PAUL, MINN.—Bids are asked until Nov. 7 for constructing a sewer in Earl St. C. H. Bronson, Clk. Bd. Pub. Wks.

NEWTON, KAN.—Local papers state that a company will be organized to build a sewer in the south side. The capital stock will be $2,000. The Newton Milling & Elevator Co. may be addressed.

CARROLLTON, MO.—This place voted Oct. 25 to issue $50,000 in bonds for a system and for paving.

HELENA, MONT.—Bids are asked until Nov. 7 for building a pipe sewer in State St. Edward Horsky, Cy. Clk.

SHERMAN, TEX.—E. M. Kearney, Cy. Secy., writes us that a franchise has been granted to Geo. W. Ruch, 2851 Hutchinson St., Philadelphia, Pa., for the system on the plans of the Pennsylvania Sanitation Co. A. A. Fielder, Mayor; C. P. Gregory, Chn.

GRAND JUNCTION, COLO.—W. P. Ela, Mayor, writes us that no definite steps have yet been taken in regard to a system.

PUEBLO, COLO.—The city engineer has submitted plans for the proposed sewer for Bessemer. It is stated that about $7,500 will be spent at once.

GRANT'S PASS, ORE.—The question of build.ng a sewer to cost about $5,000, is being considered.

PALO ALTO, CAL.—Bids are asked until Nov. 5 for building the system, $40,000 in bonds for which were voted Oct. 28. The bonds have been sold to E. H. Rollins & Son, C. E. Moore, Engr., Santa Clara, Cal.; H. W. Simkins, Clk.

SANTA ANA, CAL.—Bids are asked until 5 p. m., Nov. 7, for furnishing the materials and building the lateral sewers, about 18 miles in all; manholes, etc. Edward Telford, Cy. Clk.

SANTA MONICA, CAL.—J. C. Steel, Cy. Clk., writes us that it is proposed to construct at once three-quarters of a mile of 8-in. pipe sewer, at a cost of 58 cts. a ft. E. Carrillo, Cy. Engr.

PEMBROKE, ONT.—Plans for a system are reported to have been submitted to the council.

WALKERTON, ONT.—Bids are asked until 3 p. m., Nov. 7, for building about 5,000 ft. of 9 to 6-in. pipe sewers. R. H. McKay, Chn. Bd. of Wks.

GARBAGE DISPOSAL—STREET CLEANING

CAMDEN, N. J.—The Utilization Co., 3d and Market Sts., has been incorporated, with a capital stock of $300,000, by Kennedy Crossan, Philadelphia, Pa., Jno. T. Dyer, Morristown, N. J., Horace J. Subers, Ashborne, Pa., and Jas. E. Hays, Camden.——Street Commissioner Mohrman has submitted a report stating that it will cost about $1,000 to repair the garbage crematory.

NEW ORLEANS, LA.—Councilman Felix J. Dreyfous writes us that the city wants bids for garbage incinerators on the basis of so much a ton.

CHICAGO, ILL.—The Supreme Court has handed down a decision against the city's awarding 5-year garbage disposal contracts. The following were the contracts awarded last January: First district—Mulcaire & Burke, $350,000; Second district, Dowdle & Chamberlain, $790,000; Third district, Hanrahan & Downey, $349,312; Fourth district, Mulcaire & Burke, $384,509. Local papers state that in view of the Supreme Court's decision, it is proposed by Commissioner L. E. McGann to revive the garbage commission established last year to consider the question of building municipal crematories and letting contracts annually for the removal of refuse to those reduction plants. The commission consists of Mayor Harrison, Commissioner McGann, Superintendent of Streets Doherty, Alderman Powers and ex-Alderman John Maynard Harlan. The cost of the crematories is estimated at over $100,000.

DALLAS, TEX.—The council has received bids for building a garbage disposal plant for $10,000. Councilmen Barry and Hahn may be addressed.

SAN FRANCISCO, CAL.—H. C. Farquharson, Deputy Clk., writes us as follows, in regard to the contract for collecting and removing the garbage and refuse: The board of supervisors, Sept. 26, 1898, by resolution, directed the clerk to advertise for bids for the removal of house refuse and garbage for a period of two years, from January 1, 1899. On Oct. 10, the clerk caused a notice to be published, inviting bids to be received on Oct. 17. After publishing the notice for one day, the board directed that further publication be stopped, and postponed further action on the whole matter until Nov. 11. The present method of disposing of house refuse and garbage is by cremation, a franchise for which having been granted the Sanitary Reduction Works, 8th Floor, Mills Bldg., San Francisco, for a period of 50 years. In the matter of street cleaning, Mr. Farquharson states that the work is let by contract for a period of two years; the present contractor is the City Street Improvement Co., Rooms 10, 11 and 45 Mills Bldg., 5th Floor, whose term of contract expires Dec. 1, 1898.

MEXICO, MEXICO.—Local papers state that Lauro Arizcorreta, the concessionary, has succeeded in raising the capital necessary for the building and equipment of a crematory for the city offal, which is to be established in the Zoquipan Square, where now all the sweepings, garbage, etc., of the city is piled. It is the plan of the concessionary to use the heat of the crematory for steam purposes and to establish in its immediate vicinity a number of factories.

STREETS AND ROADS

WOODSVILLE, N. H.—Bids are asked until Nov. 5 for the purchase of $12,000 of 4% paving bonds, according to reports. F. W. Baird, Treas.

BOSTON, MASS.—Bids are asked until Nov. 4 for macadamizing on Harold, Francis and Astor Sts. B. W. Wells, Supt. Sts.——The Boston Transit Commission has allowed the street department $17,000 for repaving Tremont St.

ENFIELD, CONN.—Bids are asked until Nov. 10 for building a section of road on High and Enfield Sts. Henry D. Alden, First Selectman.

WATERBURY, CONN.—Bids are asked until 5 p. m., Nov. 5, for 1,000 sq. yds. of granite block and 130 sq. yds. of brick paving, on Bank St. R. A. Cairns, Cy. Engr.

BUFFALO, N. Y.—The German Rock Asphalt & Cement Co., Ltd., has submitted the lowest bid for asphalt paving on Mechanic St., at $3,988, and Hydraulic St., at $2,981.——The council has decided to pave portions of Clinton St., Ferry St., Morgan St., and Lafayette Ave., with asphalt.

DEERFIELD, N. Y.—C. W. Adams, State Engr., Albany, has awarded a contract for constructing two miles of road, extending from Deerfield Corners to the Herkimer county line, to James J. Dwyer & Co., Utica, at $13,806.

RIVERHEAD (L. I.), N. Y.—The county commissioners are considering the question of constructing new gravel and macadam roads.

LANSINGBURG, N. Y.—Bids are asked by the council until Nov. 9 for the purchase of $30,000 of paving bonds.

PATCHOGUE (L. I.), N. Y.—Emmet F. Smith, Cy. Engr., informs us that a contract has been awarded to the Eastern Paving Brick Co., Catskill, N. Y., at $3,400 for 2,300 sq. yds. of brick paving.

SYRACUSE, N. Y.—The following bids have been received for paving Jefferson St. with sheet asphalt from South Clinton St. to Lemon St. Russell R. Stuart, Cy. Engr: Columbia Construction Co., $39,906; Syracuse Improvement Co., $37,993; Warren-Scharf Asphalt Paving Co., $41,720; Asphaltina Construction Co. (asphalt), $39,748; (asphaltina sheeting), $37,185; Empire Contracting Co., $40,042.

JERSEY CITY, N. J.—Bids are asked until Nov. 7 for about 750 sq. yds. of Belgian paving, 3,700 sq. yds. of macadam, curbing, etc., on Greenville, Ave. Geo. T. Bouton, Clk. St. and Water Bd.

NEW BRUNSWICK, N. J.—The county freeholders have purchased the toll road from New Brunswick to Old Bridge, at $3,000. The road will be improved.

PHILADELPHIA, PA.—An ordinance is being considered by the council to pave several hundred small streets, to cost about $500,000. E. W. Patton, Chn. Com.

READING, PA.—The board of public works has awarded a contract to the Pennsylvania Asphalt Paving Co., at $9,365 for paving Fifth St., between Laurel and Canal Sts.

HUNTINGTON, W. VA.—Bids are asked until Nov. 24 for laying a brick sidewalk with gutter on Seventh St., between Fourth and Fifth Aves. F. L. Doolittle, Clk.

MONTGOMERY, ALA.—Bids are asked until Nov. 7 for paving Washington St., from Bainbridge to Lawrence St., with brick; also sidewalks of hexagon block. R. H. Sommerville, Treas.

JACKSONVILLE, FLA.—Chairman Stockton, Chn. Bd. Pub. Wks., has directed City Engineer Priolleu to prepare estimates for the proposed brick paving on Main St.

SHREVEPORT, LA.—The council is considering the question of issuing $40,000 in bonds for paving, according to reports.

LAWRENCEBURG, KY.—Bids are asked until Nov. 7 for brick paving, according to reports. J. W. Waterfill, Cy. Clk.

CLEVELAND, O.—Bids are asked until Nov. 9 for grading and draining about 1½ miles of the Berea Road. J. C. Dorn, Clk. County Comrs.

DAYTON, O.—Bids are asked until Nov. 7 for about 1,927 sq. yds. of brick paving and 1,478 lin. ft. of curbing. J. E. Gimperling, Cy. Comptroller.

ELYRIA, O.—The question of county road improvements will be submitted to a vote at the election in April, 1899.

HAMILTON, O.—The following bids have been received for paving Second St. with asphalt, from Central Ave. to Black St. L. A. Dillon, Cy. Engr.:

	With l'mstone curb & gutr.	With cement curb & gutr.
Block Asphalt.		
August J. Heinkle	$59,934	$57,149
J. M. Quill	59,136	56,862
Sheet Asphalt.		
David Folz Asphalt Paving Co.	$52,669	$49,245
Warren-Scharf Asphalt Paving Co.	51,178	46,598
Columbia Construction Co.	47,552	45,298

SPRINGFIELD, O.—Bids are asked until Dec. 6 for the purchase of $5,000 of 5% street improvement bonds, according to reports. Philip Huonker, Cy. Clk.

TOLEDO, O.—Joseph Hofman, County Surveyor, writes us that the engineer's report on the proposed stone road has been submitted to the county commissioners. No final action has been taken yet. Plans and surveys will probably be ordered sometime after Jan. 1.

FORT WAYNE, IND.—A petition will be presented to the board of public works by the residents of Lakeside for asphalt paving on several streets.

INDIANAPOLIS, IND.—Bids are asked until Nov. 9 for laying cement sidewalks on McLean Place, between Meridian and Illinois Sts. M. A. Downing, Chn. Bd. Pub. Wks.

UNION CITY, IND.—Bids are asked until Nov. 9 for grading, graveling and constructing walks on North Howard St. G. A. Rosenbush, Clk.

CHICAGO, ILL.—Bids are asked until 3.30 p. m., Nov. 4 for curbing and paving with asphalt on Vernon Ave. and curbing, grading and brick paving on Illinois St. and La Salle Ave. L. E. M'Gann, Pres. Bd. Local Improvements, 212 City Hall.

GALESBURG, ILL.—Two blocks of South Chambers St. will probably be paved in the spring.

QUINCY, ILL.—Bids are asked for the construction of the Missouri stone road to Taylor, 12,100 ft. long and 21-ft. roadway; estimated cost, $12,000. N. Heintz, Chn. Com., 523 Maine St., Quincy; F. A. Grover, County Engr.

FORT MADISON, IA.—Bids will soon be asked for macadamizing on the Burlington Road. J. R. Robertson, Cy. Engr.

KEOKUK, IA.—Plans and estimates have been submitted to the council for two blocks of brick paving.

ST. PAUL, MINN.—L. W. Rundlett, Cy. Engr., has estimated the cost of the proposed paving of 10th St. with asphalt, at $40,220; brick, $34,560; sandstone, $42,110. The paving between the tracks by the street railway company will cost $19,970 with asphalt, $17,120 with brick and $12,920 with sandstone.

ST. PAUL, MINN.—Bids are asked by the board of public works until Nov. 10 for improving Summit Ave., from Dale to Lexington Ave.

CARROLLTON, MO.—It has been voted to issue $50,000 in bonds for paving and constructing sewers.

KANSAS CITY, MO.—Bids are asked until Nov. 8 for furnishing the material and constructing brick, hexagon block and granitoid sidewalks on certain streets. Henry A. Wise, Cy. Engr.

BOULDER, COLO.—The council is considering a proposition to pave the main streets of the city, according to reports.

SIOUX FALLS, S. DAK.—Reports state that bids will be asked at the next meeting of the council for constructing several miles of sidewalks.

BEAUMONT, TEX.—L. E. Beadle, Galveston, Tex., is preparing plans and specifications for paving. D. P. Wheat, Mayor.

SANTA BARBARA, CAL.—The council has passed an ordinance for the extension of the Plaza del Mar Boulevard; estimated cost, $20,000. A. Crane, Cy. Clk.

MANUFACTURING PLANTS.

CAMBRIDGE, MASS.—Plans have been filed for the construction of a new plant for the Boston Bridge Works on 6th and Binney Sts. The building will be of brick, 275 × 162 ft., and the height, one and two stories, in sections.——The lumber mill of Geo. W. Gale, on Albany St., Cambridgeport, was destroyed by fire, Oct. 26, causing a reported loss of $30,000, fully insured. The building was a 2-story wooden structure, 60 x 30 ft.

MILLBURY, MASS.—Reports state that H. L. Bowden & Co., of Boston, have purchased the plant of the C. D. Morse Mfg. Co., in Millbury, and intend to equip it at once with about $35,000 worth of new machinery.

WALLINGFORD, CONN.—Reports state that an addition will soon be built to the Simpson, Hall, Miller & Co.'s factory, adjoining the west end of the brick factory.

JAMAICA (L. I.), N. Y.—The Diogenes Brewing Co., of which John Badenhoop is president, has filed plans for the erection of a new 4-story brick brewery, at Wyckoff Ave. and Decatur St., to cost $30,000. It will have all modern machinery, and will be built by Theodore Engelhardt, of Brooklyn. The contract for the mason work has been awarded to Dietrich Cook, Brooklyn, N. Y.

ONEONTA, N. Y.—It is announced that the Sidney Novelty Co. has increased its capital stock to $100,000, and will at once build a new shop 125 × 60 ft., which will double the present output of the plant.

OSWEGO, N. Y.—The plant of the Tonkin Boiler & Engine Works was destroyed by fire Oct. 28. The buildings were erected four years ago by J. J. Tonkin, of Oswego, and others, at a cost of $105,000, including the equipment; insurance $45,000.

BEAVER FALLS, PA.—It is reported that the Beaver Falls Enamel Iron Works Co. is making preparations to enlarge its plant. Owner, M. W. Gillespie, of Pittsburg.

ERIE, PA.—The American Meter Co., which has recently bought the Metric Metal Co.'s plant on East 10th St., will erect an addition to the factory, for use as a brass foundry, at a cost of $20,000.

JOHNSTOWN, PA.—The American Specialty Co. expects to erect a new plant in this city for the manufacture of earthenware; estimated cost, $5,000.

WHEELING, W. VA.—Plans are being prepared for a 5-story brick and stone factory building to be erected on 19th St., for the Exley & Watkins Co., manufacturers of spices and preserves, to cost about $15,000.——Plans are also under way for a 40-ton ice plant, to be erected on 28th St., South Side, for the People's Ice & Storage Co. It is said that contracts will soon be let. Pres., Chas. B. Lemmon.

BALTIMORE, MD.—It is reported that Hubbard & Co. have leased a tract of land on the water front, and that they will erect a large fertilizer plant thereon.

ORANGEBURG, S. C.—The Enterprise Cotton Mills will issue $75,000 in bonds in order to purchase at once a complete equipment for the manufacture of cotton yarns. The mill as planned will contain 11,200 spindles and 350 looms. Electric lighting plant will also be included in the mill, according to reports.

SALEM, O.—The Standard Pottery Co., of East Liverpool, O., contemplates the erection of a new pottery plant in this city.

WELLSVILLE, O.—This town expects to give a bonus of $10,000 to A. Plumer and others, who are to erect at this place a window glass factory to cost $60,000.

FORT WAYNE, IND.—C. E. Moellering & Co. have recently been awarded the contract for erecting a 3-story addition 50×80 ft., to the factory of the Fort Wayne Organ Co., on Fairfield Ave.

MERRILL, WIS.—A fire in this city Oct. 19 damaged the large sawmill of the T. B. Scott Lumber Co., causing a reported loss of $60,000; insurance, $35,000.

MARE ISLAND, CAL.—Bids are asked until Nov. 26 for the construction of a sawmill, boiler house and steel chimney, at the navy yard, Mare Island. Address Mordecai T. Endicott, Ch. of Bureau of Yards and Docks, Washington, D. C.

VANCOUVER, B. C.—A fire in this city Oct. 23 destroyed the Hastings sawmill, owned by the Royal City Planing Mill Co., which had a capacity of 90,000,000 ft. a year. Estimated loss, about $200,000.

GAS PLANTS.

BUFFALO, N. Y.—Bids are asked until Nov. 10 for sinking a gas well in South Park. G. H. Selkirk, Secy. Park Comrs.

GREEN BAY, WIS.—The A. M. Sutherland Co., of New York, has purchased the bonds of the Green Bay Gas & Electric Light Co., and also one-quarter of the capital stock. An improved Lowe water gas plant will be put in at a cost of $50,000, and about 13 miles of new iron pipe will be laid and all the wooden mains will be taken up.

MANITOWOC, WIS.—E. R. Davis, Chicago, Ill., submitted a proposition to the council Oct. 17 to construct a gas plant in this city to cost about $40,000, provided the city should grant him a 50-year franchise. Many of the residents of Manitowoc are anxious to have a gas plant built here for both fuel and lighting.

TOPEKA, KAN.—Bartlett Hayward, Baltimore, Md., has been awarded a contract by the gas company of this place for constructing a gas holder 82-ft. in diameter and 68 ft. high, capacity about 300,000 cu. ft. It is reported that 8 and 10-in. mains will be laid in a number of streets and that other improvements will be made, at a cost of about $50,000. C. K. Holliday, Jr., may be addressed.

NEW COMPANIES.—Jerome Oil Co., Cleveland, O.: $150,000, with $500 paid in; to bore for oil and gas; Edward Bushnell, A. Fostler, J. H. Sampline, T. H. Bushnell, Cleveland, O.; C. A. Neff, Glenville, O.

Empire Oil Co., Cleveland, O., $100,000, with $1,700 paid in; to produce and deal in oil; W. C. Wood, H. S. Miller, Henry Wilkes, O. A. Treiber, L. A. Wood, Cleveland, O.

Chester Light & Heating Co., Middletown, N. Y.; Pres., William A. Lawrence; Secy., Charles W. Kerner; Treas., George M. Roe; Trustees, W. A. Lawrence, C. W. Kerner, G. M. Roe, Joseph Board, Jonas D. Millspaugh, Dr. C. P. Smith, Frank Durland and R. H. Marvin.

MISCELLANEOUS CONTRACTS.

FIRE ALARM SYSTEM.—New Orleans, La.—A resolution has been passed by the council to rebuild the fire alarm system, according to reports.

BRICK.—Esquimalt, B. C.—Bids are asked by the officer in charge at H. M. naval yard, Esquimalt, B. C., for furnishing 600,000 building brick.

DREDGING.—Buffalo, N. Y.—Bids are asked until Nov. 11 for dredging a portion of the Erie basin. Geo. W. Aldridge, Supt. Pub. Wks., Albany.

DRAIN.—New Castle, Ind.—Bids are asked until 11 a. m., Nov. 3, for constructing a ditch drain in Harrison township. Henry Fadely, Drainage Comr.

CULVERT. — Cleveland, O. — The county commissioners have awarded a contract to Joseph Carabelli, at $3,829, for constructing the Nine-Mile Creek culvert.

PARK LANDS.—Cincinnati, O.—A proposition to issue $2,000,000 in bonds for the purchase of additional park lands will be voted upon at the coming election.

DREDGING.—Baltimore, Md.—The Northern Central Ry. Co. has awarded a contract to Sanford & Brooks for dredging the docks to a depth of 30 ft. at low water, at Canton.

POLICE SIGNAL SYSTEM.—Los Angeles, Cal.—Bids will soon be asked by the council for installing a complete police signal system of 50 alarm boxes; estimated cost, about $10,000.

MACHINERY AND TOOLS.—Norfolk, Va.—Bids are asked until Nov. 15 for furnishing machinery and tools for the navy yard. Edwin Stewart, Paymaster-Gen., Washington, D. C.

DRAINAGE, ETC.—Albany, N. Y.—Bids are asked until Nov. 7 for furnishing material and for work at the Knox St. viaduct for improving the drainage near Central Ave. and Sherman St.

MONUMENT.—Providence, R. I.—Bids are asked until Nov. 7 for furnishing and erecting a soldiers' and sailors' granite monument. Stone, Carpenter & Willson, Archs., 49 Westminster St.

IRON FENCE, ETC.—Cleveland, O.—Bids are asked until Nov. 21 for furnishing 600 ft. of iron fence and two iron gates for West Park Cemetery. Wm. J. Akers, Dir. Charities and Correction.

WHARF AND PARK.—Vancouver, B. C.—Reports state that the question of appropriating $12,000 for constructing a wharf, and $150,000 for laying out a park, will soon be submitted to a vote.

TELEPHONE SYSTEM.—St. Joseph, Mo.—An ordinance has been introduced in the council to grant a franchise to the Hanamo Telephone Co. to operate in this place. Alderman Garvey, Chn. Com.

PARK.—Scranton, Pa.—The council is considering the question of appropriating about $75,000 in the bond ordinance, for a proposed park for West Scranton. Address Park Commissioner Bedford.

DOCKS AND PIERS.—Cleveland, O.—The board of control has approved the contracts with L. P. & J. A. Smith for the construction of docks and piers between Seneca and Erie Sts., on the lake front.

SUBWAY.—McKeesport, Pa.—J. J. Bedell, Councilman, will introduce an ordinance for the increase of the municipal debt to the amount of $100,000, to construct a subway for electric wires and erect a city hall.

FIRE ALARM SYSTEM.—Lancaster, O.—Bids are asked until Nov. 12 for installing a complete electrical fire alarm system, to contain four circuits of No. 12 copper wire and 28 alarm boxes. H. T. Mechling, Cy. Clk.

PIERS.—Brooklyn, N. Y.—The department of docks and ferries has decided to construct two new piers, 650 × 65 ft. and 640 × 90 ft., respectively, at the Wallabout basin, estimated cost, about $70,000. J. A. Bensel, Ch. Engr.

LEVEE WORK.—Pueblo, Colo.—Frank Taylor has submitted the lowest bid for constructing the levees from Union to Victoria Aves. at $10,495 for the south side and $13,496 for the north side levee. Mayor Orman may be addressed.

TUBULAR BOILERS.—San Francisco, Cal.—Bids are asked until Nov. 28 for installing two return tubular boilers of the Scotch type, for the light-house tender "Madrona," surety, $1,500. Capt. Geo. N. Coffin, 404 Safe Deposit Bldg., San Francisco.

REMOVING ROCK.—Athens, N. Y.—T. D. Welch & Co., Nassau, N. Y., have been awarded a contract to remove about 7,000 cu. yds. of rock at Four Mile Point, Hudson River, four miles north of this place. N. O. Belyea, Engr., 547 State St., Hudson, N. Y.

TUNNEL.—Dunkirk, N. Y.—The construction of a tunnel at this place, to be 800 ft. long, and cost about $20,000, is being considered by the Lake Shore & Michigan Southern, the Western New York & Pennsylvania and the New York, Chicago & St. Louis Ry. Cos.

LEVEE WORK.—New Orleans, La.—Bids are asked by the board of state engineers until Nov. 8 for work on the William levee, on the Red River, in Rapides parish, about 165,000 cu. yds., and the De Lee enlargement, on the Atchafalaya River, in Avoyelles parish, about 30,000 cu. yds.

TELEPHONE LINE.—Augusta, Ga.—Local papers state that Thomas Barnard, of the American Telephone Co., New York, has been receiving bids at Arlington, Ga., for the construction of a telephone line between Augusta and New York, via Lynchburg, Va., Danville, Va., Greensboro, N. C., Charlotte, N. C., Columbia, S. C., and Aiken, S. C. The line will be about 500 miles long, and require about 35,000 25-ft. poles, to be completed by April 1.

MINING.—San Francisco, Cal.—The California Debris Commission, having received application to mine by the hydraulic process from the Excelsior Mining Co., in the Excelsior Mine at Lowell Hill, Nevada county, to deposit tailings in the North Fork of Steep Hollow; from Toy Kee, in the Fair Play Mine near Scales, to deposit tailings in Fair Play Ravine; from S. F. Bullard and A. M. Gray, in the Gravel Hill or McCutchean Placer Mine, near Nevada City, to deposit tailings in Little Deer Creek; and from Elmore Rutherford, in the Plumas Bonanza Gravel Mine, near Buck's Ranch, Plumas county, to deposit tailings in Sherman Ravine, gave notice that a meeting will be held in the Flood Building, San Francisco, Nov. 7.

CONTRACT PRICES.

SHELL.—Washington, D. C.—The Chief of Ordnance, U. S. A., received the following bids Oct. 21, 1898, for furnishing shell; (1) being for 1,500 7-in. common steel mortar shell; (2) for 1,000 5-in. common shell; and (3) for 1,500 7-in. common shell for howitzers: Midvale Steel Co., Philadelphia, (1) $10.69 each; (2) $3.85 each; (3) $8.98 each. U. S. Projectile Co., 1st Ave. and 53d St., Brooklyn, (1) $11.50, (2) $5.50, (3) $10.50; American Ordnance Co., Washington, (1) $12, (2) $5.70, (3) $11.25; Taylor Iron & Steel Co., Highbridge, N. J., (1) $13.30, (2) $5.49; (3) $12.85.

SHOT AND SHELL.—Washington, D. C.—It is stated that the following bids were received by the Chief of Ordnance, U. S. A., Oct. 17, 1898, for furnishing (1) 5-in. armor-piercing shot and (2) shell: U. S. Projectile Co., Brooklyn, (2) $16 each; Midvale Steel Co., Philadelphia, (1) $18.43, (2) $11.93; Benjamin Atha & Illingsworth Co., Harrison, N. J., (1) $22; Carpenter Steel Co., Reading, Pa., (1) $22, (2) $20; Firth Sterling Steel Co., Pittsburg, Pa., (1) $22; (2) $20.

DREDGING, ETC.—Wilmington, Del.—Maj. W. F. Smith, U. S. Engr., has awarded the contract for removing the rock in the Christiana River to John J. Fitzpatrick, Plattsburg, N. Y., at $7.13 a cu. yd.; the work to be completed by July 1. The contract for dredging in the river has been let to the New York Dredging Co., New York, at 12¾ cts. a cu. yd., the plant to have a capacity of 3,500 yds. a day. The bids for this work were given in our issue of Oct. 20.

GRADING AND DREDGING.—Boston, Mass.—The following bids were received Oct. 24, 1898, by Benj. W. Wells, Supt. of Sts., for grading Columbia Road, South Boston, between I and Atlantic Sts., and dredging and filling in, for a beach, in all about 188,000 cu. yds.: Eastern Dredging Co., 48⅝ cts. a cu. yd., total, $91,744; Perkins, White & Co., 53 cts., $99,640; S. J. Donovan, 46½ cts., $87,420; John W. Hensby, 53 cts., $99,640.

SIDEWALKS.—Toledo, O.—C. Peck & Sons have been awarded the contract for laying a stone sidewalk at 12¼ cts. a sq. ft; M. J. Goulden has been awarded the contract for plank walks at 24 cts. a ft. for those 6 ft. wide, and 19 cts. a ft. for those 4 ft. wide.

DREDGING.—Narragansett Bay, R. I.—Maj. D. W. Lockwood, U. S. Engr., Newport, received the following bids Oct. 26, 1898, for dredging Providence River and Narragansett Bay, R. I., on the basis that there are to be removed about 2,036,491 cu. yds., giving a channel with a mean depth at low water of 25 ft. 400 ft. wide from the ocean to Providence Harbor through the West Passage; the government specifies that the work shall begin by March 1, 1899, and be completed by July 1, 1902:

Bidder.	A cu. yd. cts.
Wm. H. Taylor, Jr., Jersey City, N. J.	14⅜
W. H. Beard Dredging Co., New York, N. Y.	20¼
The International Contract Co., Syracuse, N. Y.	12½
Frank H. Brainard, 24 State St., New York	24
Perkins & O'Brien, 256 Broadway, New York	10¾
R. C. & J. S. Packard, New York	21
J. Clements Shafter, Richmond, Va.	21½
Morris & Cumings D. Co. and P. S. Ross, Jersey City	15⅛
Rittenhouse-Moore Dredging Co., Mobile, Ala.	21
McDonald Dredging Co., 33 Wall St., New York	10⅜

ASPHALT PAVING.—Niagara Falls, N. Y.—S. F. Arkush, Cy. Clk., informs us that the following bids were received Oct. 28, 1898, for asphalt paving in two streets:

Quantities.		Barber Asp. Pvg Co., New York.	H. P. Burgard, Buffalo.
Asphalt pavement	7,015 sq. yds.	$2.29	$2.05
Excavation	150 cu. yds.	.50	.40
Rock	30 " "	3.50	3.00
Overhaul	100 " "	.02	.01
Connections: Sewer.	100 lin. ft.	1.50	1.00
Water	100 " "	.95	1.00
Gas	100 " "	.25	.50
Catchbasins	3 each	50.00	40.00
Brick gutters	60 sq. yds.	2.40	2.05
Total		$16,808*	$15,025

*Overhaul not included in total of this bid. Curbing is included in price per sq. yd. of pavement in both bids.

Cherry Ave., 1st to Main St., Barber Asphalt Paving Co., pavement, 1,175 sq. yds., $2.43; total, $3,233; H. P. Burgard, Prudential Bldg., Buffalo, $2.20 a sq. yd., total, $2,926. The bids for the other parts of the work are the same as in the 2d St. bid, although in some cases the quantities are a little less.

WATER-WORKS.—Summit, Miss.—We are informed that the following contract was let Oct. 25, 1898, to P. H. Porter, of Porter & Sanders, Columbia Bldg., Louisville, Ky., for furnishing the materials and building the works; Engr., Albert Byrne, 1821 Second Ave., Birmingham, Ala.:

Items.	Cost. Piece.	Total.
Cast-iron pipe, a ton	$20.60	$4,573.20
Special castings, a ton	40.00	160.00
Fire hydrants, each	20.50	410.00
8-in. gate valves, each	13.75	26.50
6-in. " " "	10.00	40.00
4-in. " " "	6.25	37.50
Valve boxes, each	2.25	24.00
Laying 8-in. pipe, a lin. ft.	.14	84.00
" 6-in. " "	.12	671.04
" 4-in. "	.10	1,062.00
Furnishing and laying, 2-in. vit. pipe	.15 }	483.00
" " " 1¼-in. pipe	.12 }	
" " set'g pump & heater		975.00
" " " 2 boilers		1,150.00
" " " stand-pipe		2,803.76
Building power-house		450.00
Sinking well, 6-in. casing		600.00
Deep-well pump and pumping basin		525.00
Total		$13,875.00

SEWER PIPE, CEMENT, ETC.—Newtown, Mass.—Chas. W. Ross, St. Comr., West Newtown, informs us that the following bids were received Oct. 21 for furnishing about 90,000 ft. of 24 to 4-in. sewer pipe, about 4,700 bbls of American cement, etc.; the bids for the sewer pipe were rejected:

Bidder.	Sewer pipe, discount.	Cement. American, 4,700 bbls.	Portland, 800 bbls.
Fiske, Hames & Co., Boston, Mass.	78%	$0.75	$2.15
Berry & Ferguson, Boston	77½%	.82	...
Waldo Bros., Boston	77½%	.81	2.15
Ham & Carter, Boston	80%	.80	...
Portland (Me.) Stone Ware Co.	78%	...	...
W. G. Nash, Boston	..	.82	...
Smith-Green Co., Worcester, Mass.	..	.82	2.08

Bidder.	Manhole covers, 200, each.
A. Russell & Sons, Newburyport, Mass.	$5.98
Concord Foundry Co., Concord, N. H.	4.95
Portland (Me.) Stone Ware Co.	4.87
Chelmsford Foundry Co., Boston,	4.99
Osgood & Hart, Charlestown, Mass.	4.65
Mechanics' Foundry Co., Boston,	4.59
Sessions Foundry Co., Bristol, Conn.	4.44
Somerville Foundry Co., Somerville, Mass.	4.47
Le Baron Foundry Co., Middleborough*	4.28

*Awarded contract.

STATE HIGHWAY.—Sudbury, Mass.—The following contract was let Oct. 20, 1898, to White & Gaffney, Medford, Mass., for building in state highway in this city for the Massachusetts State Highway Commission; Secy., A. B. Fletcher, Boston: Excavation, 1,375 cu. yds., at 25 cts. a cu. yd.; excavation, borrow, 200 cu. yds., 50 cts.; ledge excavation, 100 cu. yds., $2.00; rubble masonry—laid dry, 38 cu. yds., $2.75, laid in cement, 100 cu. yds., $7.00; gravel, 425 cu. yds., 50 cts.; Telford, 100 sq. yds., 30 cts. a sq. yd.; shaping, 6,778 sq. yds., 2½ cts.; broken stone in place, 1,743 tons, $1.50 a ton; 12-in. cast-iron pipe, 50 lin. ft., $1.50 a lin. ft.; 20-in. cast-iron pipe, 34 lin. ft., $3.00; fencing used as guard rail, 500 lin. ft., 17 cts.; side drains, 300 lin. ft., 35 cts.; stone monuments, 14, each $1.50; catchbasins, 2, each $20.00; superstructure of bridge, lump sum, $450; total, $5,353.

SEWER, ETC.—Hamilton, O.—The following bids were received by the board of control Oct. 16, 1898, for constructing a sewer in 4th St., and for arching the hydraulic: S. E. Irwin—12-in. single strength sewer pipe, 40 cts. a lin ft.; manholes, each $15.00; inlet basins, each $21.00; brick sewer, $9.49 a lin. ft.; Jos. T. Guillaume—12-in. single strength sewer pipe from street crossings, 40 cts.; manholes, $11; inlet basins, $13; brick sewer, exclusive of first three items, $9.13; Gus Drach—12-in. single strength sewer pipe, 50 cts.; manholes, $2; inlet basins, $22; brick sewer, $9.51; Louis Drach—Concrete conduit, complete, $8 a lin. ft. (this bid is on separate plan of the bidder); W. H. Louthan—12-in. single strength, 25 cts.; manholes, $10; brick sewer, A, $9.80; 20-in. single strength, 34 cts. a lin. ft.; 18-in., 27 cts.; 15-in., 21 cts.; 12-in., 16 cts.; less than 6 ft. deep, 12 cts.; 6 ft. deep and over, 12 cts.; manholes, $15; inlet basins, $15; iron pipe laid with lead joints, $25. Total, about $17,000. Jos. T. Guillaume is the lowest bidder.

ENGINEERING MATERIAL PRICES.

TRACK MATERIALS—
New York—Angle bars, 1.05 cts. to 1.10 cts.; spikes, 1.40 cts. to 1.50 cts.; track bolts, hexagonal, 1.80 cts. to 1.85 cts.; square, 1.60 cts. to 1.70 cts.
Chicago—Angle bars, 1.10 cts.; spikes, 1.55 cts. to 1.60 cts.; track bolts, hexagonal, 1.90 cts. to 2.00 cts.; square, 1.80 cts. to 1.90 cts.

RAILS, STEEL—
New York, new, $18.00 to $19.00; old iron, $11.00 to $11.50; old steel, $9.00.
Chicago, new, $20.00 to $22.50; old iron, $12.50 to $13.25; steel, $8.00 to $10.00.
Pittsburg, new $18.00 to $20.00; old iron, $13.50 to $13.75; steel, $10.00.

STRUCTURAL STEEL—
New York—Beams, 1.35 cts. to 1.45 cts.; channels, 1.35 cts. to 1.45 cts.; tees, 1.45 cts. to 1.50 cts.; angles, 1.25 cts. to 1.30 cts.; rivets, 1.75 cts. to 1.85 cts.
Chicago—Beams, 1.35 cts. to 1.50 cts.; channels, 1.35 cts. to 1.50 cts.; tees, 1.40 cts. to 1.50 cts.; angles, 1.30 cts. to 1.35 cts.
Pittsburg—Beams, 1.20 cts. to 1.30 cts.; channels, 1.20 cts. to 1.30 cts.; tees, 1.20 cts. to 1.25 cts.; angles, 1.10 cts. to 1.15 cts.

PLATES AND SHEETS—
New York—Universal mill plates, 1.25 cts. to 1.30 cts.; tank, 1.35 cts. to 1.40 cts.; shell, 1.40 cts. to 1.45 cts.; flange, 1.60 cts. to 1.70 cts.; firebox, 2.25 cts. to 2.50 cts.
Chicago—Universal mill plates, 1.30 cts. to 1.35 cts.; tank, 1.25 cts. to 1.30 cts.; shell, 1.55 cts. to 1.60 cts.; flange, 1.30 cts. to 1.50 cts.; firebox, 1.75 cts. to 4.00 cts.; sheets, 2.00 cts. to 2.10 cts.
Pittsburg—Universal mill plates, 1.10 cts. to 1.15 cts.; tank, 1.10 cts. to 1.15 cts.; shell, 1.30 cts. to 1.35 cts.; flange, 1.20 cts. to 1.25 cts.; firebox, 1.50 cts. upwards; sheets, 1.85 cts. to 1.95 cts..

MERCHANT STEEL—
Machinery, per lb., 1.60 cts. to 1.70 cts.
Tool, per lb., 5.50 cts. to 7 cts.

IRON—
Pig iron:
New York—No. 1, $11.25 to $11.50; No. 2, $10.50 to $10.75.
Chicago—No. 1, $11.50 to $12.50; No. 2, $11.00 to $12.00.
Pittsburg—No. 1, $10.50 to $10.75; No. 2, $10.00 to $10.10.
Bar iron:
New York, common, 1.07½ cts. to 1.10 cts.; refined, 1.15 cts. to 1.20 cts.
Chicago, common, 1.05 cts. to 1.10 cts.; refined, 1.15 cts. to 1.20 cts.
Sheets:
Common, American, per lb., 1.45 cts. to 2.55 cts.
Russia, per lb., 10½ cts. to 11.00 cts.

LUMBER—
New York:
Hemlock timber, 20 ft. and under, per M, $12.00 to $12.50.
Piling, Eastern spruce, 35 to 40 ft., 80 to 40% 12-in. butts, 4 cts.
Spruce, special cargoes, per M, $15.00 to $17.50.
Yellow pine, random cargoes, $15.50 to $17.00.
North Carolina pine, $2.25 to $2.40 advance over Norfolk rates.
San Francisco:
Oregon pine, per M, $15.50 to $17.50.
Redwood, per M, $18.20 to $20.00.
Redwood tank stock, up to 10 ft., $24.00 to $25.00.

GENERAL MATERIALS—
Lead, New York, $3.65 cts. to $3.70 cts.
Nails, Pittsburg, 1.40 cts.
Solder, per lb., 8¼ cts. to 11¼ cts.
Spelter, per lb., 3.90 cts. to 4.00 cts.
Copper ingots, 12.40 cts. to 12.50 cts.
Granite, rough, New York, cu. ft., 40 cts. to 50 cts.
Limestone, New York, cu. ft., 70 cts. to 80 cts.
Ohio freestone, New York, cu. ft., 85 cts. to 90 cts.
Slate, Penn., block, per square, $4.00 to $5.00.
White lead, American, per lb., 5½ cts. to 6 cts.
Lime, common state, per bbl., 70 cts.

INDUSTRIAL NOTES.

THE DETROIT GRAPHITE MFG. CO., Detroit, Mich., has removed its Chicago office from 1033 Marquette Building to 1564 Monadnock Block.

THE GOHEEN MFG. CO., Canton, O., has recently introduced a paint for galvanized iron. This has the trade name of "Galvanum" and will, according to claims, adhere satisfactorily to galvanized surfaces.

THE HARRISBURG FOUNDRY & MACHINE WORKS, Harrisburg, Pa., has an order for boilers and engines, as well as a complete steam plant, to be used in a large woolen mill near Pekin, China. The mill, it is said, will be the first of the kind ever erected in China.

THE RITER-CONLEY MFG. CO., Pittsburg, has a contract to build for the Mexican City Tramway Co. an engine and boiler house, a main building, a coal storage building, etc. About 300 tons of structural steel will be required, together with other material needed in structures of the kind.

THE WE FU GO COMPANY, Smith and Augusta Sts., Cincinnati, announces that the Lorain Steel Co., Lorain, O., now of the Federal Steel Co., has adopted its system of purifying water for boilers, at its new blast furnace. The plant will purify 1,200,000 gallons each 24 hours, sufficient water for 12,000 HP. water-tube boilers. This company has had live steam purifiers in use at the steel mills for some time, but it is expected that the device now adopted will give better results than the mechanical purifiers and save money.

THE RUSSELL SNOW PLOW CO., Tremont Building, Boston, Mass., reports the following recent orders: New York Central & Hudson River R. R. Co., one Russell wing-elevator snow-plow, size No. 2, and one Russell standard snow-plow, size No. 2, both for the Western division of the main line; also for two Russell wing-elevator snow-plows, size No. 2, for their Rome, Watertown & Ogdensburg line. Also an order from the Saginaw, Tuscola & Huron R. R. Co. for one Russell snow-plow, size No. 3, with air flanger, and an order for two Russell snow-plows, with hand flanger, size No. 4, and for one size No. 3 for the Washington County R. R., a new road in Maine.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., is creating a steel lattice truss about 68 ft. long for the Seamless Metal Co., Sing Sing, N. Y. The truss crosses the railway and affords access to different parts of the company's works. The company is also erecting for the United Gas Improvement Co., Waterbury, Conn., the steel work for a generator room and an engine room. These roofs are to have steel trusses, supporting the roof covering. This covering is corrugated iron lined with the Berlin Iron Bridge Co.'s patent anti-condensation fireproof lining. The engine room has a span of about 33 ft., and the span of the generator room is about 51 ft.

Nearly Every Prominent Contractor and Manufacturer of Contractors' Supplies READS ENGINEERING NEWS

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